American
FORESTS
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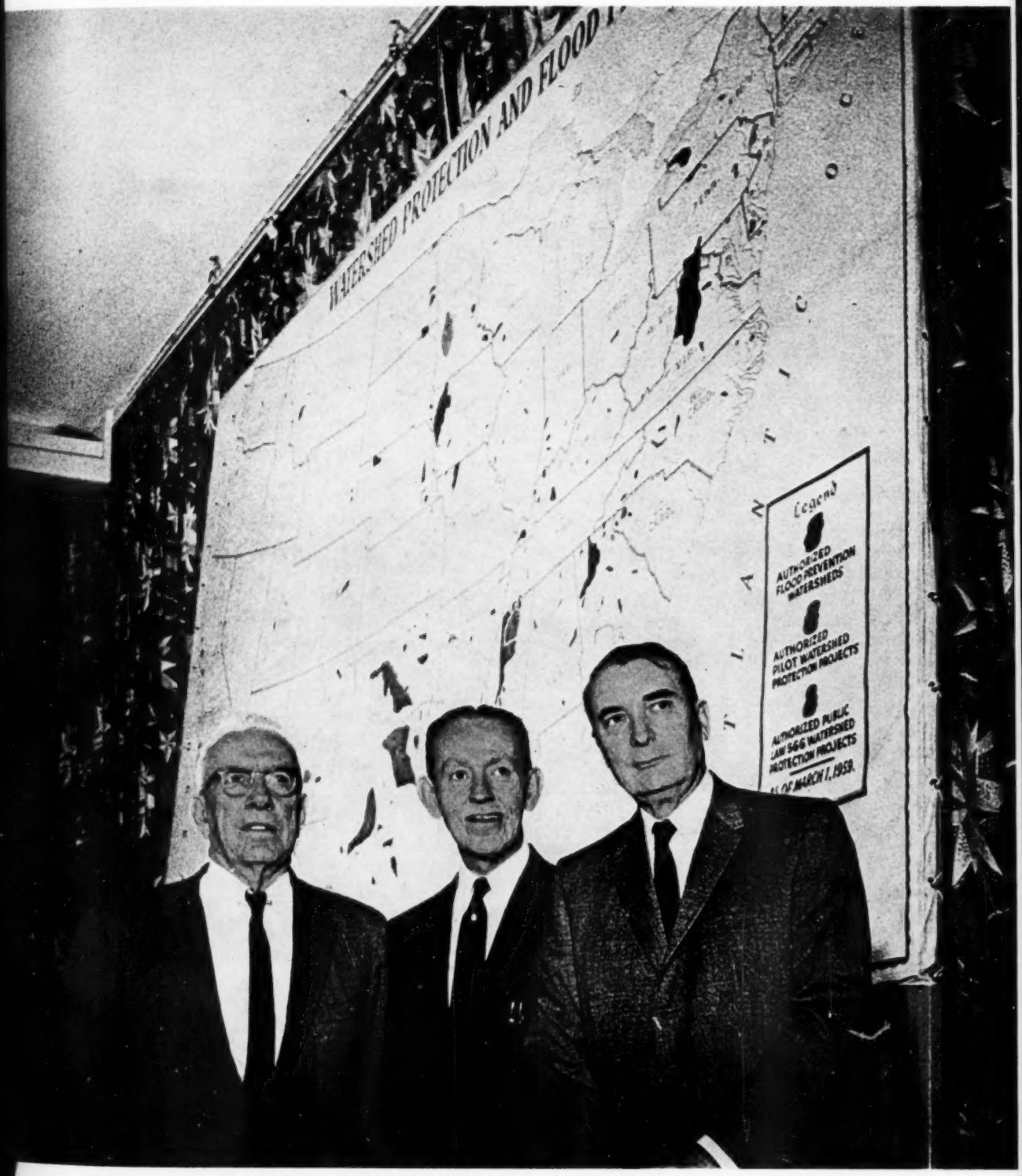
JULY 1959 **50 CENTS**



A MAP OF PROGRESS · ***See Pages 1 and 38***

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American FORESTS

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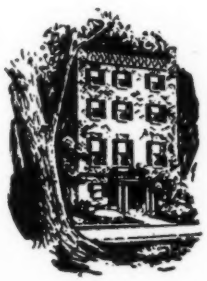
CONTENTS

COVER (A Map of Progress)

A highlight of the Sixth Watershed Congress was a huge map showing progress in the nation under Public Law 566. Two of the most interested observers of this map were Senator Aiken (Vermont), left, and former Representative Hope (Kansas), right, the authors of the so-called Small Watersheds Law. In the center is C. R. Gutermuth, chairman of the Congress' steering committee. The map was prepared by the Caterpillar Tractor Company. Photograph by Vincent Finnigan.



The AFA

The American Forestry Association, publishers of *American Forests*, is a national organization — independent and non-political in character — for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and the part they play in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

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Forest Forum

Bias Charged

EDITOR:

The article by Daniel A. Poole in the May issue of AMERICAN FORESTS is a thoroughly biased job. The fight over the park versus comprehensive development is largely nonsense, fed by the fretful fury of those who think that the only use for the Potomac should be as a park in the narrow sense, and that all who urge a broader look at the matter are in malicious error.

Note, for instance, that Mr. Poole refers to the great "fresh water" reservoir below the District of Columbia. He states that it might take a little cleaning up before he would put it into the drinking fountains of the people of the District, but he omits the frequently stressed fact: That this reservoir is filling up with silt from the Potomac above Washington at the rate of 60 million cubic feet of silt a year. Mr. Wolman estimates that without up-stream controls it will be a delta in 50 years—and hardly a source of water for domestic use between now and then. Such facts cannot be "emoted" away.

Note also that Mr. Poole makes no reference to the position of organized labor in the District of Columbia, because he and too many of the other park supporters prefer to fix the issue as a co-op-private power fight.

A year ago I asked the *Washington Post*, which has been as one-sided on this issue as Mr. Poole is, to have some competent person on or off the staff make a study and write a comprehensive article on the pros and cons of the Potomac-park struggle. Nothing has been done.

Perhaps you would be interested in having this done, in the interest of objectivity and proper development and control of the Potomac. The least you could do would be to publish the other side of the argument, or, the other *sides*. The use of the Potomac for the good of man is not so simple a problem as the park enthusiasts believe. We need less finger-pointing and emotional breast-beating about this or that narrow concept of development to the exclusion of all contradictory facts, and a good, cool look at the whole problem.

Clay L. Cochran
Legislative Consultant
Industrial Union Department
AFL-CIO
Washington, D. C.

Determined Rider

EDITOR:

Thoroughly enjoyed your interview with Harlean James in the April issue of AMERICAN FORESTS.

I was one of the ranger-packers on her "pack train trip over the John Muir Trail from Yosemite to Sequoia" with Dr. Harold Bryant in the summer of 1937. What Harlean didn't say was that an earlier trip into the Kings River country when her riding horse fell, breaking Miss James' pelvis, did not deter her acceptance of Harold Bryant's invitation for the arduous 1937 trip.

Bernarr Bates
California Redwood Association
576 Sacramento Street
San Francisco 11, California

"Amen" Corner

EDITOR:

I was much interested in the article in the May issue of AMERICAN FORESTS entitled "A Westerner Looks at Wilderness."

I would like to say "Amen" to the comments made by Bill Hagenstein in this article. Our state agency is strongly opposed to the pending legislation and has testified before the same committees in this opposition. Wyoming now has 1,429,600 acres of wilderness area. This is 1/3 of the wilderness area presently constituted in the United States. In addition, we have 871,000 acres of primitive land, and 183,520 acres called Indian wilderness. The National Park System in Wyoming consists of 2,349,609 acres, of which only about 5 per cent has been developed and the remainder is classified as wilderness. This area constitutes 8 per cent of the state of Wyoming. We are not opposed to existing wilderness areas, but do not believe in expansion of any further restrictions on the use of Wyoming land for other than multiple use purposes.

With the present rate of population growth and the increased use of all of Wyoming's and the nation's resources, it would seem an ill-advised time to change from the fullest multiple use management, which would not be proper conservation.

May I congratulate you on your article.

Bob Steiling
Board Secretary
Wyoming Natural Resource Board
Cheyenne, Wyoming

EDITOR:

Your timely editorial in the May issue of AMERICAN FORESTS deserves hearty applause. By bringing the concept of multiple use of our only renewable natural resource into focus with the Wilderness Bill's proposal of a static single use, I believe it helps the American public to make intelligent decisions on this vital issue; decisions based on reality after considering all sides of this question. More forestry organizations and individual foresters could, by interested effort, help guide this national policy matter. I would be very interested to hear the U. S. Forest Service's viewpoints on this timely subject.

In considering your statement, "Sustained yield, being a comparatively new development in forestry . . ." I'd like to point out that foresters have been growing continuous timber crops in Europe for centuries and basically, sustained yield is the main reason for forestry being practiced. However, the problem in this country has definitely been one of demonstrating the economic necessity of forestry (and sustained yield) due, of course, to our original vast stands of virgin timber. As you probably know, industrial forestry has been practiced on a large scale in the Pacific Northwest for only about 15 years. . . . Realization of the dollars and cents value of forestry (a sustained timber crop yield) has highly energized the industry's forestry programs.

Bruce A. Shaner
Industrial Forester
4155 Center Street
Salem, Oregon

EDITOR:

I read "A Westerner Looks at Wilderness"with interest, but noted a weakness in the argument advanced by Mr. Hagenstein. If the area figures quoted by wilderness advocates don't tell the whole story, neither do his.

It's not by accident that these western areas have been left relatively untouched and thus fit for possible retention in a wilderness condition. Timbermen and other resource users have scorned many of them as marginal or submarginal. A meaningful measure of the amount of resource being advocated for wilderness recreation would be the percentage of each state's total productive capacity that enthusiasts suggest be reserved as wilderness.

J. A. Wagar
School of Natural Resources
University of Michigan

Committee on Elections

President Don P. Johnston, of AFA, has announced that Harold B. Shepard, 470 Atlantic Avenue, Boston, Mass., has been named chairman of the Committee on Elections. Other members are Paul M. Dunn, St. Regis Paper Company, 150 East 42nd St., New York City, and Arthur W. Greeley, U. S. Forest Service, Washington 25, D. C. Suggestions for nominations for directors of the association to be elected by the membership may be submitted to the Committee on Elections by any member of the association. Nominations for directors may be made by not less than 50 members of the association in good standing, signed by the members submitting them. All suggestions and nominations should be addressed to the Committee on Elections, at 919 Seventeenth Street N.W., Washington 6, D. C., and must be received by the Committee on or before September 1.

We Thought So Too

EDITOR:

In my opinion, Dr. J. Alfred Hall's searching essay on "Resource Management: A Base for Freedom" in the April issue was one of the best articles I have ever seen in AMERICAN FORESTS. I was impressed both by his philosophical viewpoint and by his mastery of literary style.

Elmer W. Shaw
Editor
Rocky Mountain Forest and
Range Experiment Station
Forest Service

EDITOR:

This is a little late in the saying, for one does not usually think of a forestry magazine as a source of inspiration. But the story by Jean Giono, "The Man Who Planted Hope and Grew Happiness," certainly was, especially in an age when a good many people are interested in what they can get rather than in what they can give. If the cost were within reason, it seems that reprints of that story would make very appropriate Christmas cards for anyone interested in forestry or conservation.

Jessie L. Soars
Geisinger Memorial Hospital
Danville, Penna.

EDITOR:

The piece about the new maple blight interested me very much. This seems to be one way to avoid time-wasting laboratory procedures: cut the lumber, distribute it widely, and if the disease appears in any significant number of places where the lumber has gone, then we really have a nice, new blight. I suppose they are keeping some record of the destinations of possibly-diseased timber?

Otherwise, I liked the article about the proposed Cape Cod Park, and loved "Howdy" at first sight.

Annie M. Murphy
20 School St.,
Lynn, Mass.

Incorrect Impression?

EDITOR:

An incorrect impression of the Natural Resources Council of America is given in the "Washington Lookout" of the February AMERICAN FORESTS. The paragraph reporting NRC co-operation with the proposed western hemispheric conference begins:

"The Natural Resources Council, which passes no resolutions, adopted a resolution at Tucson, Arizona endorsing the proposed conference. . . ."

The implication is thus given that NRC had over-stepped its role as a "service" and not an "action" organization.

NRC, just as any organization, must have an orderly, democratic procedure for transacting its own internal business. This is accomplished, via Roberts *Rules of Order*, by motions, seconds, discussion and vote by the membership. The action taken was in no way a "resolution" in the sense that the article suggests.

The article does make this clear later, although the casual reader might miss it. The difference of opinions reported did not

(*Turn to page* 70)

Senator George D. Aiken of Vermont

Aiken Takes Issue with President's Pollution Stand

IN an address before the Connecticut River Watershed Council, Senator Aiken, of Vermont, said he was "disturbed" by the report that the President "feels that the $50 million program of the federal government for stream pollution abatement should be abandoned and the cost of the work thrown back on the states and communities."

The Senator said, "I disagree with the President on this and agree with Governor Rockefeller of New York that what is now a $50 million federal program should be doubled rather than eliminated. An investment in clean water supplies is one of the most profitable investments we can make.

"The pollution problem is not one for purely local or even statewide interest, it is one of regional and national concern," Senator Aiken asserted.

Even as the Senator spoke, Congress was witnessing a tug of war on the issue, with conservationists right in the middle of it. While the Administration is against pollution as strongly as anyone else, the President has been conducting a one-man campaign to cut government costs and balance the budget. In this effort, he is receiving growing public support, with his personal popularity at an all-time high.

Conservationists who have been fighting to save the $50 million pollution program say they fully sympathize with the President's over-all aims and objectives. They also bluntly say that if Congress throws the whole pollution program back in the laps of the states, "The job just won't get done, and everyone knows it."

In his Connecticut address, Senator Aiken said that pollution is a matter of extreme importance to New Englanders. "It is not only essential that we conserve water and make the best possible use of it," the Senator said. "It is equally important that the water be clean. Here again, we find the necessity for local, state, and federal co-operation. . . We have a federal program for the elimination of stream pollution. It has been a popular program. It is fast becoming an effective program."

The changing land use patterns of New England "will necessitate more attention being paid to the conservation and use of the available water supply, the purification of existing supplies, and more intensive and better-planned use of the remaining agricultural land," Senator Aiken told the council.

The primary factors responsible for this change were described by the Senator as the rapidly expanding urban population which is steadily overrunning farm lands, thereby requiring more highly intensified agriculture on the remaining farm acreage; and the pressure on the land, as the interstate highway works north, for industrial and residential development.

"The problem of water pollution has increased with the influx of new residents and new industries into the growing towns along the Connecticut," Senator Aiken said. "Along with this urbanization of the valley has come the vaulting demand for ever-increasing amounts of electric power and water for irrigation, recreation, and domestic and industrial uses. A more recent use for our water supply has come with the development of electric energy from atomic reactors," he added.

The Senator then discussed the changing pattern of farm ownership. "There has been a tendency to merge the acreage of several small farms in order to establish one which is economically profitable . . . We are infinitely better farmers than we used to be, in spite of the increased cost of nearly everything. One reason is that we have learned to make better use of soil and water resources . . . How we use these resources will determine how we are going to live in the future."

"Conservation of soil and water resources," Senator Aiken declared, "is a matter of national importance. It is a matter of prime concern to urban as well as rural people. Federal as well as state and local co-operation is essential to the successful operation of such programs. Like many other operations involving participation at the various levels of government, it will be found that the nearer home the control of such programs can be kept, the more successful they are likely to be."

Citing New England's enviable record in the field of state co-operation, he recalled that the Forest Fire Control Compact was the first regional program of its kind, and that the Connecticut River Flood Control

(*Turn to page* 55)

Earl W. Loveridge

EARL W. LOVERIDGE—

An Appreciation

By C. M. GRANGER

NO one excelled Earl Loveridge in his devotion to his chosen purpose in life. Next to his family, his whole life centered on the Forest Service, particularly the national forests, with a collateral interest in natural resource conservation in general. He was endowed with abounding energy, physical and intellectual, of which he gave unstintingly to forestry.

One pictures Loveridge as perennially youthful in his vigor, his enthusiasms, and his drives for efficiency and performance. Until almost the very last, he was characterized as a man of action. It took a mighty good man to keep up with him in the woods or in the production and appraisal of ideas.

Earl never took anything for granted. His was a challenging mind. Not infrequently in staff meetings a decision would almost be reached when Loveridge would challenge it, present a different viewpoint or proposal, and persuade his colleagues to adopt another solution.

One notable example is the fire control policy of the Forest Service. Experience throughout the years had led a goodly number of men to propose that a forest fire which was heading into low-value country be "herded" until it died a natural death instead of spending large sums to get fire fighters and equipment into territory of difficult and costly access in order to extinguish the fire promptly. Loveridge challenged this. He led the campaign to combat this idea, feeling that it would introduce confusion into the fire control policy and result in indefensible losses and criticism. These views prevailed, and Loveridge can be credited with a large share of responsibility for the long-standing policy and objective of getting every fire under control by ten o'clock in the morning of the day following the fire's inception.

Earl was a searching inspector. It was said of a famous lover that when he kissed a girl she stayed kissed. When Loveridge inspected an outfit it stayed inspected. But the inspection was never ruthless. Always Earl took account of human fallibility, balanced the credits against the demerits and, above all, strove to point out constructively how to remedy shortcomings. It was not uncommon to find in his report some such statement as "Ranger Blank has made a valiant effort, *bless his heart,* to get on top of the overgrazing situation on his district."

Personnel management was one of Loveridge's important responsibilities as an assistant chief of the Forest Service. To him this was not just a matter of ratings. Rather, he thought of it as recognizing the talents and potentialities of each individual, planning a course of training for him, and advancing him as fast as warranted, so that each one could contribute as fully as possible both to the Forest Service and to the person's own welfare and ambitions.

Probably the best-known and most notable of Loveridge's accomplishments was the development of a method of measuring administrative work loads. He led in the adoption of standards of performance, the means to determine the time required to do each of the multitudinous jobs on the national forests, and ways to accomplish the combined load in the minimum of time by such devices as work plans, job schedules, and progressive travel. This was of incalculable value in determining the number and kinds of personnel needed on each unit. It made possible the reorganization of national forest and ranger district units, an efficiency and economy measure which made the best use of available personnel. It made possible greatly improved and more useful plans of work and travel

(*Turn to page* 70)

Reading about RESOURCES

By MONROE BUSH

RAPPORT WITH NATURE: TWO VIEWS

THE rich green fields of Devon are a good many crow-miles from Mt. Rainier, and an Englishman-naturalist has a decidedly different cut from a Midwest-born forester. Yet the oneness of nature that lies hidden beneath its diversity was never so apparent, nor the similarities of human response so obvious, as in two fine new books: **A Clear Water Stream** by Henry Williamson (Ives Washburn, Inc., New York, 1959. $3.50) and **A Year in Paradise** by Floyd Schmoe (Harper & Bros., New York, 1959. $4.50).

Williamson has a cultivated Englishman's command of language, and the story of his family's idyllic life in their cottage beside a trout river reveals again and again the delicate, sensitive rapport which some Englishmen so easily, and perhaps inevitably, establish with their immediate, close-by world.

Schmoe is distinctly American. He reacts with vigorous directness, and his language, for all its vitality, is by no means as subtle or imaginative as the Englishman's.

Yet in each case you have the literate record of a man's immersion in the free, uninhibited natural world about him. The Englishman is more the poet. The American is more the reporter. Yet both men are participants, rather than mere observers, and both books are superb.

Schmoe's account of his first climb through the blustering winter snows of Mt. Rainier to Paradise Inn, his petite bride struggling on snowshoes at his side, and of the ensuing months the couple spent as caretakers in this snowbound lodge, is a fresh, heart-warming story. Schmoe's endless observations of the natural world of this frozen wilderness are among the best of their kind. His brief description of a shrew, for instance, is unforgettable. This is a very human, and for that reason a very revealing, book that catches the mystery and the power of its magnificent setting. Being as much about people as about a place, it portrays the place better than if there were no people in the story. Schmoe and his lovely bride are there on the spot, measuring Mt. Rainier by their human dimensions, and the result is something to read!

Equally distinguished is **A Clear Water Stream.** Williamson's careful perceptions are classic. Listen to this: "Looking at my river, I saw that, all the time, it was gnawing away, not only its bed, but its bank. Its current was pouring, pressing, scooping, using its gravel to abrade the valley bottom all day and all night. It was never still, never consistent in its pressures and shiftings. Its restlessness came from the shapes of its bed, from the differing waywardness of currents moving at every level. It was like a society made up of innumerable diversities of human beings at different levels, and therefore, perspectives. The river was always changing, ever striving to move objects resisting its flow. And every rise and fall of the water levels gave it new angles of attack upon the solids of the land. . . . Water, like man, cannot be frustrated, by the nature of its energy; and like any human society, a river bed is always breaking down and remaking itself, and coming as it were to realize that the more its course changes, the more it discovers the past. River history is always repeating itself."

Here, then, are two books that can be wholeheartedly recommended for summer reading. Neither is a substitute for the other. Together they are rich fare, literate, sincere, and memorable.

NEW AND TO NOTE

"The foremost newspaperman in conservation," or "the foremost conservationist in newspaper work"—take your pick. Both statements have been used to describe R. G. Lynch of the *Milwaukee Journal.* His columns have reached far beyond the Midwest, and series such as "Ditches, Dust and Ducks" have been nationally effective. A less-publicized series carried only by the *Milwaukee Journal* on Alaska is regarded by some as the best first-hand report on the new state to date.

But never did this able and very practical idealist score as high as in **Our Growing Water Problems** (National Wildlife Federation, 1959), as vivid and persuasive a document as was ever put together on the subject of water usage and management in the United States.

This is neither a technical nor an exhaustive treatment of its tremendously complex subject—there are enough and to spare of these already. Instead, it is a hard-hitting, compact summary of the most significant facts—not all the facts by any means, but many of the most vital—for the citizen-at-large: the informed, responsible citizen, that is.

Lynch has read all those heavy, professional volumes on water that are as formidable as Hoover Dam. He has kept abreast of the stories that are breaking almost daily in the country's newspapers. He has known and talked with many of the men whose interests are most involved in the patterns of water usage. And the distilled result of this indefatigable learning is condensed into the book's brief sixty

(*Turn to page* 60)

Willard Gibbs Van Name

HE LOVED TREES

By KATE SWIFT

THERE was a time when it seemed that only one man in the entire United States was fighting for the permanent preservation of a certain stand of sugar pine on the lower western slope of the Sierras, some 40 miles south of Lake Tahoe. Willard Gibbs Van Name, who died on April 25, 1959, one week after his eighty-seventh birthday, spearheaded the drive that led eventually to the inclusion of that stand, probably the finest of its kind anywhere, in California's Calaveras Big Trees State Park.

Dr. Van Name first saw the giant sugar pines that cover the slopes east of Beaver Creek when he rode on horseback through the area in 1941. A veteran, by that time, in the work of the Save-The-Redwoods League, he was attracted to this remote region by the South Calaveras Sequoia Grove, which was then in private hands. The movement among conservationists to preserve these sequoias permanently was slowly gathering momentum, and while there were yet many obstacles to be overcome, it was understood by all concerned that the Big Trees must, and would, be saved.

But little attention had been given the sugar pines. In fact, they had apparently never been described in print. After his visit, Van Name wrote, "I was astonished to find that such trees still existed . . . I had expected to find some fine trees, but when I found myself scarcely pausing to look at a sugar pine less than six or eight feet in diameter, I knew that here was indeed a unique forest."

During the next few years, Van Name waged virtually a one-man campaign to have the pines included in the preservation program for the South Calaveras Sequoia Grove. But neither the California State Park Commission nor the Save-The-Redwoods League was willing to jeopardize the program's chances for success by extending it to embrace the pines.

Van Name took his case for the pines to the public in magazine articles and letters to newspapers. He bombarded officials in California, and later in Washington, with letters, telegrams, and phone calls. More than any other single factor, it was his dogged persistence that was responsible in the end for the addition of the Beaver Creek sugar pines to the South Calaveras Grove land package that was acquired by California in 1953.

This 12-year-long campaign was typical of Van Name's undeviating devotion to the primeval forests of North America. As early as 1924 he was writing pamphlets, published at his own expense, aimed at arousing public opposition to specific lumbering activities in the national parks. His efforts and activities were involved in the creation of Kings Canyon and Olympic National Parks, and in the addition of valuable forest areas to Yosemite and Sequoia National Parks.

At one time or another he was associated with nearly every major conservation organization in the United States, and, although his income was moderate, he contributed generous amounts of money to their work. But he was not by nature an organization man. His unwillingness to compromise, exemplified by his stand on the South Calaveras Grove issue, frequently brought him into conflict with the leaders of these groups. To those who agreed with him in principle, his views on particular issues often seemed extreme, and his forthright expression of them in public print tended to set him apart as a lone combatant.

A constant critic of the U. S. Forest Service's selection of land for the preservation of sample forests, he once claimed in a letter to *Science* magazine that all such lands "had first to pass a searching test for absolute commercial worthlessness." On the other hand, he often showed an objectivity toward lumber interests that is not common among champions of primeval forest preservation. After one long, and eventually successful, campaign to save an outstanding redwood grove, he wrote to a friend, "I feel that we should not forget the heavy losses that the owners of the timber have suffered; losses which were in large part unavoidable, yet which might have been somewhat less had they not been public-spirited enough to desire the preservation of the tract and to be

(*Turn to page* 71)

By ALBERT G. HALL

THE POVERTY STRICKEN Bureau of Land Management in Alaska last month was fighting forty fires in the McGrath-Ruby Fairbanks corridor with the possibility that forty more were raging undetected under the smoke pall. At the same time sleepless, nearly-exhausted men were fighting another 5,000-acre conflagration gutting the Kenai Peninsula far to the South, under conditions said to be the worst since 1947. Severe lightning storms started the fires moving eastward through central Alaska. Conditions are as bad today if not worse than in 1957 when five million Alaskan acres were blackened For the men on the fire line, their plight has an ironic twist when weighed against the penny-pinching attitude of the Bureau of the Budget. In an ill-advised effort to save money by withdrawing funds for protection of federal lands, the Budget Bureau reduced fire appropriations for fire suppression and construction of smoke jumper facilities by $500,000. The wisdom of this deletion can be evaluated by the fact that more than one million dollars of the Emergency Fire Fund has been expended for fire control in Alaska so far this year. And this is just the beginning!

RECOGNIZING THE IMPOSSIBILITY of forcing enactment of the Wilderness Bill (S. 1123), the bill's supporters in mid-June began searching for means of securing some measure of recognition from the current Congress. As a result, Secretary of Agriculture Benson advised the Senate Committee on Interior and Insular Affairs on June 19 that the department would recommend enactment of the bill if: 1) all provisions with respect to establishment of a Wilderness Preservation Council are deleted, and 2) provision is made that primitive areas now temporarily reserved would remain in wilderness only if the Secretary of Agriculture determines them to be predominantly of wilderness value. Secretary of Interior Seaton also advised the committee that the Department of the Interior would recommend Congressional action if Congress would provide that-"termination of federal trusteeship over a tribe or tribes of Indians shall remove from the wilderness system any included tribal lands so affected." The Senate Committee could report out a revised bill on short notice. It is unlikely that the House will take any action during this session. One major question still disturbs multiple use conservationists, AFA reports. Why create a "System" at all, they ask? Why not a simple proposal to recognize wilderness preservation as a desirable policy of the government of the United States?

ON JUNE 23, 1959, SENATOR MURRAY introduced S. 2240 for himself and 21 other senators. This bill would authorize appropriation of $720 million during the next 12 years for construction of 90,000 miles of forest roads and trails. An additional investment of $564 million would be secured by reducing national forest timber valuations to permit timber purchasers to build needed roads. This bill is similar to S. 1136 of the 85th Congress which was endorsed by AFA. Its purpose is to implement Secretary Benson's Program for the National Forests.

INCREASE IN FORESTRY APPROPRIATIONS WAS URGED by the Senate Committee on Appropriations in its consideration of funds for the U.S. Forest Service for the fiscal year ending June 30, 1960. Committee members felt that the recently announced long-range and short-range programs for national forest development should be implemented as quickly as possible. Funds for the programs were not requested in the 1960 budget, which had been released prior to the presentation of the program to Congress. Estimates are that an additional $41 million would be needed if the development plan were to get off to a good start in the next fiscal year. The

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Senate committee urged the Secretary of Agriculture and the Bureau of the Budget to request supplemental funds, over and above the present budgeted amounts, and indicated that if the request were not forthcoming from the Administration, the committee itself would consider providing adequate funds to implement the program. The House Committee on Appropriations, however, did not concur with the Senate views. House members stated that the new program should first be reviewed by the legislative committees of the Congress and such additional appropriations should be made upon the recommendations of the appropriate committees. Hearings have been held by the forestry subcommittee of the House Committee on Agriculture. It is likely that some phases of the new program will be implemented in fiscal year 1960 through supplemental appropriations.

APPROPRIATIONS FOR FORESTRY ACTIVITIES FOR FISCAL YEAR 1960 have been approved by both the Senate and House. Senate action increased some of the forestry funds over those voted by the House. Conference action in most instances split the differences or held the Senate figures. For the Bureau of Land Management, the measure provides $24,627,000 for management of lands and resources, and $200,000 for construction of timber access roads on other than revested Oregon and California railroad grant lands. For the roads on O & C lands, an appropriation of 25 per cent of receipts from sales was authorized. This amount will be contributed by the O & C counties from their portion of total receipts, and will be around $5 million. For national forest management and protection $77,815,000 was appropriated. The budget request of $14,026,400 for Forest Service research activities was allowed. Funds for state and private forestry co-operation were increased to $12,327,000, thus providing for initiation of a co-operative forest management program in the state of New Mexico. For roads and trails on national forests, $26 million is provided, $2 million above the budget request. (Tabulation of the budget requests and appropriations for forestry items will appear in the August AMERICAN FORESTS.)

A NATIONAL FOREST RECREATION RESOURCES REVIEW has been announced by Secretary of Agriculture Benson. Starting July 1, field task forces will begin on-the-ground studies of the recreational potential of the national forests. The resultant inventory will be used to guide Forest Service recreational programs, and will be made available to the Outdoor Recreation Resources Review Commission, established by Congress last year. Basic units for the study will be the ranger districts, covering 181 million acres of national forest land. The inventory will consider all kinds of outdoor recreation — camping, picnicking, fishing and hunting, mountain climbing, boating and swimming, skiing, hiking, horseback riding, and wilderness and wild area usage. Field work is expected to be completed late in 1960, and the final report will be issued in the spring of 1961. In making the announcement, Secretary Benson pointed out that the use of national forests for recreational purposes has jumped from about 4 million visits in 1924 to 68.5 million in 1958. The 1958 figure is 12 per cent higher than that for 1957.

SUPPORT FOR THE WILDERNESS PRESERVATION BILL was expressed last month by Mrs. Eleanor Roosevelt in her syndicated column. The former First Lady said, in part, "We are reaching the point in our country where we have to think seriously about the preservation of natural resources. If we do not preserve our forests, we will lose our water. We must all be familiar with what has happened in countries like China in the Far East and Iran and other countries in the Near East, where the hills are completely denuded of trees and topsoil is washed away so that the land below has become desert and the mountains are stark rocks.... This bill would provide for what is most important in the education of our people. It would give them a voice in saying what should be done with our wilderness areas." In the Senate, it appears that some action may be taken on a wilderness preservation system bill. Following hearings, it is understood that still another revision is in the mill — a revision that will include minor changes to make it more acceptable. Best guess is that a committee revision will constitute the new bill. Passage of a wilderness bill is only a remote possibility, however. It is believed that final action for or against the proposal will await the report of the Outdoor Recreation Resources Review Commission. A delay until the commission's report is available does not appear to prejudice the wilderness situation, since no major additions or reductions affecting wilderness areas are contemplated for the near future.

Editorial — A Message from AFA's President

By the end of World War II, the approaching end of the country's virgin timber, coupled with increasing demands for forest products, created an impetus for stepped-up forestry programs. Taking cognizance of this situation, The American Forestry Association made a nationwide survey of forests and forestry. This was followed by a conference of forestry leaders at Higgins Lake, Michigan, where a tentative Program for American Forestry was drafted. This draft was further refined on the anvil of public opinion at the Third Forest Congress, called by AFA in 1946, after which it was adopted by the association.

In 1950, an AFA Progress of Forestry report by Ovid Butler showed that the program laid down in 1946 was not being implemented as rapidly or as effectively as had been hoped. A change of federal administration in 1953 made that year a propitious time to take another look at forestry progress. Accordingly, the association followed the same Higgins Lake route once again, and a Fourth Forest Congress was held in the fall of 1953. The following year saw adoption by the association of a second Program for Forestry which, in most respects, paralleled the first, and is perhaps an indication that it may be somewhat easier to set up solid goals than to achieve them.

History has a way of repeating itself, and once again, in 1959, AFA hears the question being raised, "Are we making progress fast enough?"—a question due in no small measure to the challenge laid down by the Timber Resource Review of the U. S. Forest Service. The consensus is that we are not, although some are much more complacent about the present rate of progress than others.

In view of the question being raised, AMERICAN FORESTS, for the benefit of new members and to refresh the memories of old friends, is republishing the complete program for forestry adopted in 1954. (See page 17.) Coupled with the program are expressions of opinion on the present rate of progress from representative forestry leaders, beginning on page 26.

Opinions differ on the rate of progress, but a number of people have singled out the Southern Forest Fire Prevention Conference and amendment of the mining laws as applied to public lands for special commendation. I do not propose to go into all the pros and cons of our program here, but personally, I am tremendously cheered 1) by growing indications that the forestry complex is working in concert as it seldom has before; and 2) by the increased emphasis all branches of forestry place on sound multiple use programs. These are notable gains, in my opinion, and I like to think AFA had a hand in helping to achieve those desirable conditions.

Personally, I prefer to break our program down into three chief categories of effort. These are: 1) public forests; 2) industrial forests; and 3) woodlots, by which I mean some 300 million acres of woodland owned by farmers and other small owners.

The federal, state, county, and community forests (130 million acres) long ago recognized the principle of interrelation in the management of forests, soil, water, wildlife, and outdoor recreation. All have made gains, but all too often these efforts have been hampered by insufficient funds for the construction of access roads and other physical improvements. Consequently public programs, in too many cases, have been forced to mark time. Even so, some states have made good gains, and there are now encouraging signs on the national forests for reasonably prompt improvement on schedule. I take my hat off to Assistant Secretary of Agriculture Peterson for yeoman service in spearheading this latter effort.

By the employment of more and more foresters, the construction of needed facilities, and the recognition of the principles of multiple use, the industrial forests (62 million acres), or at least a large percentage of them, have shown marked advancement since World War II. I like to think that AFA has been a helpful influence in this development too, and I sincerely believe the public, all too often, has failed to give industrial forestry full marks for a commendable effort, particularly in the South and Northwest. While much remains to be done, believe me, this is no window-dressing effort. Industry is in multiple-use forestry to stay.

In reference to the third category—the so-called small woodlot—I sometimes wonder if we haven't taken the easy course of applauding even the limited successes of the first and second groups, while ignoring the needs of the third. It is true we haven't fully come to grips with this problem. It is also true we don't know just what and whom to come to grips with. Are there actually 300 million acres of small woodlands that require commercial management, or is it closer to 200 or even 150 million, once we eliminate areas that would be uneconomical to manage, or areas where recreation and wildlife are the paramount concerns? We don't really know. We do know that small islands of managed woodlands have sprung up adjacent to going industry and public programs where forestry has touched the "pocket nerve."

Some impatient individuals say, "Regulate these woodlands and do it now," but here again, the question arises as to just whom you start regulating and how you go about it. Also, how can you compel an owner to do something if he has purposes other than forestry in mind; or, if he does have forestry in mind, in areas where the tax structure and marketing conditions are such that he can't make a reasonable profit on the job he is being compelled to do? Finally, while it may be that forestry will ultimately see a degree of regulation, a favorable climate for such methods must first be created. That climate does not exist today, on the basis of AFA's own surveys.

At the same time I agree with the late D. C. Everest that it doesn't pay to be *too* arbitrary about these matters. Since most of us agree that we aren't achieving all the results we might desire, why not take a closer look at those nations where they *are* getting results? In this connection, I must confess I was impressed by an objective report by the editor of AMERICAN FORESTS in the June, 1955 issue on Ray Marsh's study on co-operative programs in Sweden. In urging that AFA next turn its full attention to small woodlots, it occurred to me that an AFA task force to study Swedish co-operative programs might be highly desirable. This task force might well find that a new heavy weight boxing champion isn't the only thing in that nation that packs a hefty wallop.

EXPLORING ALASKA

By HUGH BENNETT

Dr. Hugh H. Bennett is regarded as the "father of soil conservation in the United States"

IT was in the spring of 1914 that two of us in the Department of Agriculture—Tom Rice and myself—were detailed to the Department of the Interior to look into the agricultural possibilities of those parts of Alaska which were being considered for the location of a railroad from the coast to Fairbanks, construction of which had been authorized by Congress.

This exploratory trip was not our idea, but we raised no objection. Matter of fact, it met with our hearty approval. We had spent years in the department's Bureau of Soils classifying and mapping soils and appraising their fitness for agricultural production. Moreover, we were young enough and sufficiently experienced for rough going and adventure.

While making preparations for our trip, Secretary Franklin K. Lane of the Department of the Interior called me to his office to explain where we were to go and what we were to do. I listened attentively; he was boss of operations at the Washington end.

Surrounded by stacks of reconnaissance maps and reports by Interior's geologists who had explored large portions of the territory, the Secretary pinpointed the areas we were to explore first. Afterwards, if time permitted, we would have a look at the Kuskoquim Valley west of these primary areas.

I left the interview with the feeling that we were headed for strictly wilderness country—largely inaccessible, without roads, trails or bridges, and having only small remote settlements beyond the limits of the few towns built up around placer gold operations, mining, and salmon canneries. To us, Alaska increased in immensity and wildness with each experienced person with whom we talked. Everything was big—the country itself, the mountains and glaciers, the rivers, the brown bears, and the distances between points.

Some of these accounts might have been disquieting, but we felt sufficiently competent to handle the situation due to our experience on the old soil survey, which had taken us into some very rough country right here in the United States. We were told there were no snakes in Alaska, and that most of the prospectors who had searched for gold in every nook and cranny had eventually returned to civilization in whole skins. Anyway, we were resigned to meeting difficulties as best we could when they got in our way—as they did from day to day.

Arriving at Ship Creek on Cook Inlet, camp headquarters of the Alaska Engineering Commission (charged with building the railroad), we went ashore at the muddiest landing I ever encountered. It was low tide, and on Cook Inlet that is really low. This was to be the site of Anchorage, a city that developed quickly as soon as the government railroad was located. At the time there was no such city, except, possibly, in the imagination of builders who hadn't had time to get there.

Next day we walked out six miles to homesteader Whitney's cabin and vegetable garden—the first farmer of the locality. It was a sunny day, pleasantly warm. Mosquitoes filled the air to near-saturation.

Homesteader Whitney showed us his vegetable fields, some already planted and others readied for planting. He was thoroughly enthusiastic with his new home. Ashes from the 1912 eruption of Mount Katmai, 325 miles to the southwest, had enriched his soil and killed off the mosquitoes, according to his appraisal of the situation. However, at times we had to tighten our mosquito-proof headgear and fan a hole in the swarming mosquitoes to see what was going on.

On the way back to Ship Creek we had a sweeping view of Alaska's immensity and wild magnificence. Mount McKinley, the highest peak of the continent, stood out 140 miles to the north in a majestic splendor of glittering snow and ice. The rugged Alaska Range stretched from east to west in a 300-mile arc of perpetual snow and glaciers. Now, for the first time, we had a glimpse of the bigness of the country and of its unspoiled beauty. However, we were yet to learn the full meaning of Alaska's wildness, and it wasn't long coming.

Our first field trip took us into Matanuska Valley at the head of Cook Inlet. Here we found undulating to low-hilly country with large tracts of good loam soil, which we called Knik loam. About 800,000 acres of this better type of soil were found in the Cook Inlet country. A few settlers had proved its productiveness, as well as the lack of productivity of scattered areas of shallow soil.

We had a pack horse for supplies, but walked the entire distance. Fortunately, there were some fairly good trails.

Now followed a more lengthy and much more difficult type of exploration into the Susitna River Country. The Susitna is the principal stream entering Cook Inlet from the north. It drains a vast area of foothill and valley country on the southern side of the Alaska Range.

(*Turn to page* 56)

Soil Conservation Stamp

THE nation's first soil conservation stamp will be released by the Post Office Department on August 26 at Rapid City, South Dakota, at the annual meeting of the Soil Conservation Society of America. It will go on sale at post offices throughout the country the following day.

The four-cent postage stamp, issued in the commemorative series, was developed in co-operation with the U. S. Department of Agriculture. It will be printed in three colors: yellow, green, and blue. The stamp, designed by Walter Hortens, a New York artist, portrays a modern conservation farm having contour strip-cropping, terracing, tree planting, pasture improvement, and a farm pond.

Issuance of the stamp, officials of the Agriculture Department said, is a tribute to farmers and ranchers, their local soil conservation districts, and to the professional conservationists and other agricultural workers who have helped make the United States a world leader in soil conservation.

Observances are planned in most of the nation's more than 2,800 soil conservation districts, in co-operation with agricultural, conservation, industrial, and civic groups.

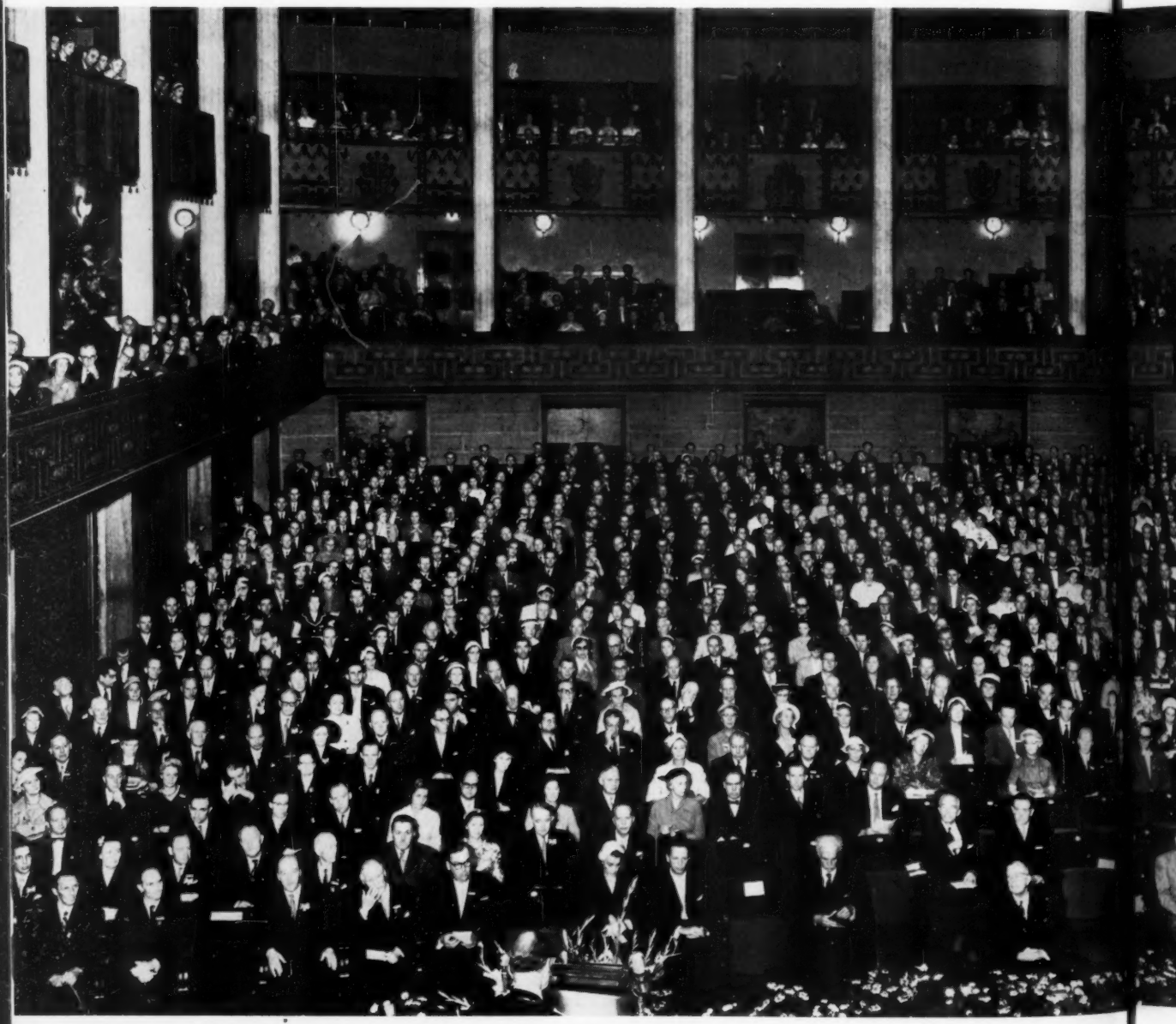
Meanwhile, agriculturists are hard at work publicizing National Farm-City Week, November 20-26. During this national observance, farm and city people across the nation will be encouraged to consider their mutual water interests and problems on a watershed basis.

It will be explained that the source of water—whether it is used for industry, for domestic purposes in the home, for agriculture, or for recreation—is the watershed land on which it falls as rain or snow. For that reason, watershed protection and development will be stressed. The watershed wraps up in one natural package most of the problems and opportunities of water supply, water use, and flood control. The watershed protection values of forest cover on privately and publicly owned land will, of course, be brought out.

In support of the Farm-City Week observance, the Agriculture Department, through its Office of Information and interested agencies, will offer watershed information to press, radio, and television. A fact sheet will be produced for inclusion in the Farm-City Week kit which will be distributed to the state and local leaders of the observance.

The emphasis on water and watersheds is expected to find support from other state and federal conservation agencies, from conservation organizations, and from many other sources.

GIVING FORESTRY A



His Majesty, the King of Sweden, is shown fifth from right, front row, at Northern Forest Congress in Stockholm's Concert Hall. The speaker is General-Director Höjer. Sitting directly in front of podium are Minister of Agriculture and Mrs. Netzén

Jägmästare (Master of Forestry) Axel Schard—on special occasions medals may be worn

A PLACE IN THE SUN

By RAYMOND E. MARSH

Assistant Chief, Emeritus
U. S. Forest Service

Picture courtesy of Swedish Forestry Society

(Mr. Marsh is eminently qualified to write this article. He has drawn upon the accounts in the Swedish magazine *Skogen,* the Swedish daily press, his own considerable knowledge of many of the places and conditions observed on the excursions, and correspondence with forester friends in Sweden. He was a guest at the dinner meeting of the Executive Committee of the Northern Forest Union in Stockholm in 1955, and spent the following day in the field with them and other leading foresters of Sweden. He is the author of the publication "Public Policy Toward Private Forest Land in Sweden, Norway, and Finland." The regard in which he is held in Sweden is indicated by the fact that the government of Sweden has honored him with the Royal Order of Vasa.—Editor)

FEW COUNTRIES in the world attach as much importance to the practice of forestry in the general public interest as do Sweden, Norway, Finland, and Denmark. Their foresters enjoy much prestige. Forestry may well be called the cornerstone of the economies of the first three of these countries. Although it is not so to the same degree in Denmark, this primarily agricultural country, alarmed that her forests were so limited, in 1805 passed a law prohibiting the conversion to agriculture of any land then in forests, although some was good agricultural land. That law is still in force, and Denmark has some of the most intensive forestry to be found anywhere.

Forestry programs and needs undergo intensive study and widespread public scrutiny. Much is done to make the general public aware of the vital importance to the general welfare of the wise management and utilization of forests. The more important forestry conventions and assemblies are important ceremonial affairs, attended by high public officials, and embellished with good music and other cultural features. They are meticulously planned down to the last detail with a view to efficient conduct and to maintaining and enhancing the standing of forestry.

A case in point was the Ninth Northern Forest Congress, which took place last year in Sweden. It included a network of field trips, or excursions, as the Scandinavians call them, that reached all important forest conditions, problems, and practices in Sweden from the southernmost province to the Arctic Circle. Opportunity was also provided to see some of Sweden's many features of historic and cultural interest. The convention proper, held in the impressive Concert Hall in Stockholm, was attended by the King, the Minister of Agriculture, and other important officials. Women were out in force. Their activities were no mere afterthought, but were carefully planned to make them feel an integral part of the Congress, even to an address directed especially to them at the colorful banquet in the Blue Hall of Stockholm's City Hall.

While some of the news value of this quadrennial congress may have rubbed off by now, I believe a description of it may have some interest to American foresters as an exam-

ple of skillful, intensive planning for, and conduct of, an international forestry congress, and perhaps more to the point, as a small-scale prelude to the World Forestry Congress to be held in the United States in 1960. I shall take the liberty of including a few glimpses of Sweden.

To a degree which many countries may envy, forestry has won a "place in the sun" in Scandinavia. (In this article "Scandinavia" is used broadly to include Finland.) Surely one important effect of the Northern Forest Congress was to strengthen that place. A world forestry congress in the United States is a new undertaking. We should not be content with doing anything less for forestry on a world basis.

The first Northern Forest Congress was held in Gothenburg, Sweden, in 1923 at the initiative of Sweden, with Norway, Denmark, and Finland also participating. The congress now meets at four-year intervals. Some of the earlier congresses took place at three-year intervals. Two were prevented by World War II.

Since the establishment of the Northern Forest Union in 1946, the congress has met under its auspices. The establishment of the Union gave more formal status to the objectives of the congress and to the goals which the foresters of these four countries have long sought, with considerable success, to attain.

Simply stated, the objective is to encourage the improvement of forest conditions and practices in these northern countries through mutual exchange of information derived from experience and research, and through familiarity with field conditions and the forestry institutions and organizations of the several countries. The Union exercises no authoritative control, but informally arranges and facilitates cooperation among the countries concerned. It is aware of, and profits from, the fact that there has been and would be a substantial amount of acquaintance and cooperation among these friendly nations with similar conditions and problems, as a matter of course.

Exchange of information, the development of acquaintances among the foresters, and knowledge of forestry conditions, practices, and institutions are accomplished to a large extent through actual observations and discussions on the ground. Consequently, the congresses and the excursions that are a major feature of them play a very important role.

Since the congress now meets at four-year intervals, and in each country in turn, each country will be the host country once in 16 years. The business of the Union is handled by an Executive Committee composed of the forestry heads of the four countries, and meets annually or oftener. For the period 1955-58, which included the Ninth Congress, this committee consisted of Gen.-Dir. Erik Höjer, Chief of the Swedish Forest Service; the late Gen.-Dir. N. B. Ulrich, Chief of the Danish Forest Service; Gen.-Dir. N. A. Osara, Chief of the Finnish Forest Service; and Executive Director N. N. Ihlen of the Norwegian Forestry Society. As the representative of the host country for the Ninth Congress. Gen.-Dir. Höjer was president of the Union for that period. The next congress will be held in Norway in 1962, and Gen.-Dir. Langsaeter, Chief of the Norwegian Forest Service, is president of the Union for the period 1959-62.

FORESTER HONORED

Kenneth B. Pomeroy, Chief Forester, The American Forestry Association, has been named the outstanding alumnus of the year by the *Alumni News* of Duke School of Forestry, Durham, North Carolina. Mr. Pomeroy will receive special mention in the "We Present" issue of the *Alumni News*. The honor is bestowed annually by the organization. Mr. Pomeroy was cited for "outstanding contributions to the forestry profession."

The Union has a secretariat, or office, in each of the four countries —in each case, associated with the office of the national forestry society. The office in the country of the president is the general secretariat of the Union.

One of the functions of the Union is to bring up to date and publish *Skogsbruket i Norden* (Forestry in the North) at four-year intervals. This booklet gives for each country the most important facts about its forest land and timber—area, volume, ownership, growth, and drain —and about forest industry, forest exports and imports, forest labor, and the number of foresters. It also describes for each country the organization for forest administration, education, and research, and the forest societies and related organizations. It is a very useful handbook.

A most important specific function of the Northern Forest Union is to sponsor and arrange for the northern forest congresses. The latest of these, the Ninth, will be described in some detail.

An organizing committee was set up in Sweden, the host country. This included A. K. Annell, Associate Chief of the Swedish Forest Service, as chairman; Hans Hedlund, Executive Director of the Swedish Forestry Society, as general secretary, with assistants for publicity and finances; Manfred Näslund, Governor of Norrbotten Province and formerly Director of the Swedish Forest Research Institution; Eric Persson, a prominent county forest officer; W. Plym Forshell, a division chief in the Royal Board of Private Forestry; and three prominent forester representatives of forest industry.

The Congress was arranged for the period August 25-30. The first day was primarily for the participants to reach the assembly places for the 28 field "excursions." Not included in this number are the two excursions for men that were canceled. The plans for these were prepared in the same careful detail, with separate program brochures, as the others, and are included in Volume I of the proceedings.

Each excursion covered three full days, August 26-28. The general or plenary session of the Congress took place in Stockholm on August 29. The Congress was timed so that the participants could attend the opening ceremonies of the well-known international St. Eric's Fair and its fine forestry exhibits on August 30 (Saturday). The program of the Congress was concluded with an informal dinner and social evening for forestry people in the Technical Museum on that day.

The annual meetings of several forest-related organizations were synchronized with the Congress. For example, the Work Technology Section of the International Union of Forest Research Organizations held a meeting August 29-September 6 which included a several-day excursion. The great bulk of Swedish forestry organizations, however, hold their annual meetings during Forest Week, itself a very important, well-established institution in Sweden.

The excursions, in my opinion, were the most important phase of the Congress. Here, while actually

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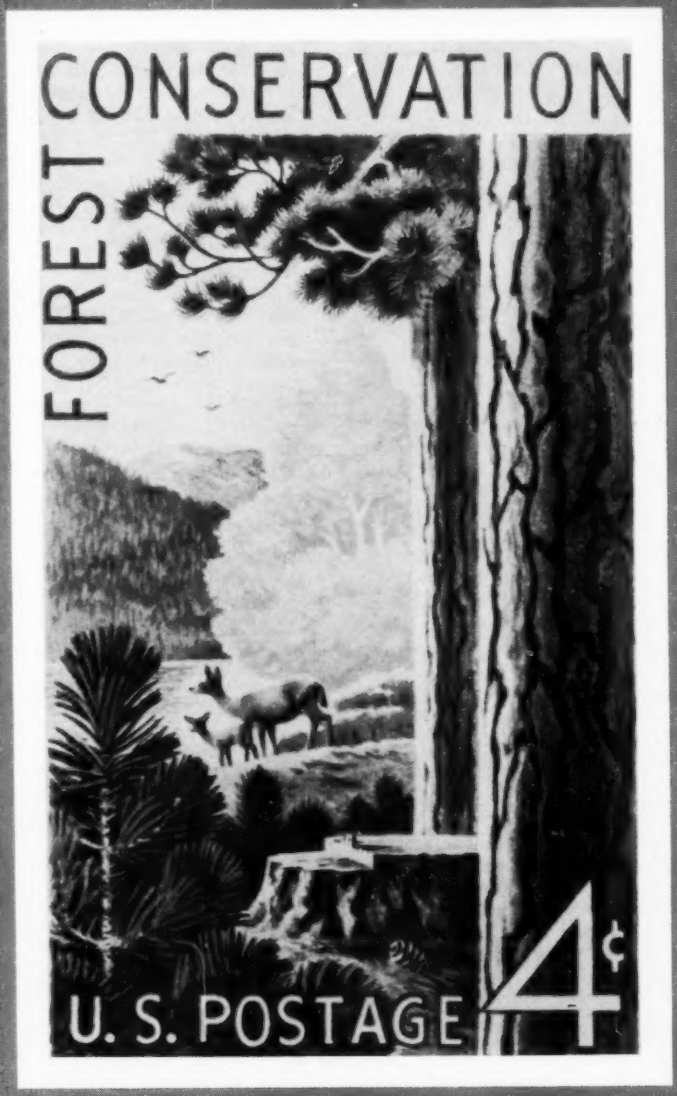


A Program for American Forestry

For the benefit of its many new members, AFA herewith republishes its Program for American Forestry adopted by the association in 1954 following the Fourth Forest Congress

AMERICAN FORESTRY TODAY

DURING the past decade forestry in the United States, both public and private, has gained in accomplishment and stability. It has moved from the original exploitation of virgin resources toward the goal of permanent integration in the American economy and structure of land usage. These gains are due in part to progress under public and private policies. The cooperative and other programs of federal, state and private action have set in motion many resourceful local programs and undertakings, not only in forest protection and tree planting but in forest taxation, research, education, and the improvement of cutting practices. Other important advances have resulted from the improved economic status of wood, its markets and its production. Commercial forestry and wood utilization have made notable progress and are strengthening the economic base for timber cropping in many directions.

Much must still be done to conserve the forests of the United States and its territories and to improve their management. The goal of national policy is still the maximum contribution from forest lands to the American economy and to the health and spiritual well-being of its people. The importance of forests and forestry to national security and strength in world-wide relations has been reemphasized by international developments since World War II.

The more urgent and critical steps in American forestry have been taken. The actions now necessary fall more into the category of long-range planning and adjustments, consolidating gains, filling gaps, and improving methods.

THREE IMPORTANT GOALS FOR FORESTRY

The situation existing today, based on experience during the last decade, points up three immediate goals for national policy. **They are:**

1. **To meet the essentials of forest protection.** This will require continued expansion, improvement and research on the control of forest fires, with special emphasis on control by prevention. It is of equal importance that the control of forest insects and diseases be brought up to and maintained at a level of effectiveness comparable to the control of forest fires.

2. **To improve the national timber crop in volume and quality to a degree sufficient to wipe out all deficits and build up a reserve.** This can be accomplished practically and economically by utilizing more fully the productive capacity of our public and private forest lands.

3. **To obtain the maximum of economic and social services from our forests by realistic application of the principle of multiple use in their management.** This should include all forest uses and services, but must give great weight to national requirements in conservation of water and control of erosion.

The multiple use of land involves many adjustments between conflicting uses and benefits. The grazing of watersheds on forest-producing lands by domestic livestock or the propagation of game animals often involve such conflicts. They can be resolved only by intelligent administration, which must be charged with responsibility for determining the priorities in use on any given area.

The Program

I—FOREST LANDOWNERSHIP

The commercial forest lands of the United States, excluding Alaska, embrace an estimated total of 461 million acres. They are scattered throughout the nation. Based on U. S. Forest Service estimates (1945-1950), their ownership in point of acreage is as follows: federal, 89 million acres; state, county, and municipalities, 27 million acres; privately owned, 345 million acres. Small holdings greatly predominate in the over-all ownership. Farm woodlands and other holdings of less than 5,000 acres represent 4,222,000 owners and a landownership of 261 million acres, or more than one-half of the total forest acreage of the country.

To clarify the status, responsibility, and action as regards the management and use of these lands for forestry purposes, **we recommend that:**

1—Early action be taken by the Congress to establish a joint Congressional Committee, consisting of members of the Senate and House Committees on Interior and Insular Affairs, the Senate Committee on Agriculture and Forestry and the House Committee on Agriculture, whose objectives would be:

a) To consider a desirable pattern for ownership of federal, state and private forest, range and other conservation lands.

b) To formulate policies to guide action of public agencies toward achieving this pattern.

c) To recommend to the Congress legislation needed to enable federal agencies to implement these policies.

2—Early action by the governor of each state to appoint a representative committee to report on the conditions in his state as they may relate to items *a)*, *b)*, and *c)* above, and render a report which will be made available to the Joint Congressional Committee.

The American Forestry Association reaffirms its long-standing support of federal and state forests. As a general rule, it should be the national policy to leave in private ownership most forest land having reasonable prospect of effective management thereunder; and to extend state or federal holdings for timber production chiefly in land types not having such prospects or where there is need to complete existing public units. Future federal purchases or exchanges should not block the extension of state forests or of sustained-yield private management.

II—FOREST LAND MANAGEMENT

To achieve the three goals of American forestry as set forth above, accelerated action in the field of forest land management is called for along the lines and under policies here recommended:

A—FOREST PROTECTION

The protection of lands bearing forests or devoted to the growing of forests against destruction, depletion or damage by uncontrolled fires, epidemics of tree-destroying diseases, insects, and other pests is basic to long-range forest land management.

1—Protection Against Forest Fires

Continuous forest production of water, timber, forage, wildlife, and recreation is dependent upon adequate protection against fires. Current destruction or damage of these resources by fire, in the face of greater public use of forests and advances in resource values, emphasizes the urgency of an expanded and intensified control effort that will strengthen existing fire control programs and at the same time bring all forest lands under effective organized protection.

In some areas inadequate regular appropriations for forest protection result in inefficient use of the protection dollar. Special efforts should be directed toward increasing prevention and pre-suppression activities in order to reduce number and size of fires and consequently high costs of their suppression.

Organized protection of state and private forest lands has been extended to 369 million acres, leaving 58 million acres without protection. The cost of protection has risen to $37 million, 75 per cent of which is borne by the states and private owners. State expenditures are almost four times and private expenditures about double those of 1944. Federal expenditures are nearly one and one-half times the 1944 outlay. In many cases, however, the increases in area protected have not carried corresponding increases in facilities and personnel.

The term "fire control" as used herein means activities to prevent forest fires as well as to control them after they start. In striving for effective control, past experience shows that integrated cooperative effort offers the most efficient and economical means for achieving desired levels of protection. **We recommend:**

1—Coordinated effort by all agencies to expand and intensify fire control programs including:

a) A joint public and private review of past and current problems on present control measures in each state and Alaska, of control needs, and finances.

b) Full recognition of protection responsibility by the cooperating federal, state and private groups.

c) Increased emphasis on hazard reduction in areas of heavy use and high fire frequency.

d) More citizen fire prevention organizations at the community level and complete integration of all fire prevention and control programs.

e) Competent technical assistance made available to those who use fire as a tool in land management.

f) Further development of interstate and inter-American agreements to foster mutual aid. Joint training and joint planning for forest fire prevention and control.

g) Analysis of fire causes at the local level so that prevention programs may be readily adapted to meet current situations effectively.

h) Intensification of research in forest fire control and coordination with military research in defense against fire from atomic and incendiary attack.

i) Improvement of fire weather forecasting, particularly for local areas and specific forest types, as an important tool for fire prevention and control. The Weather Bureau is encouraged to provide leadership in this service.

Changing conditions, increasing industrial activities and population pressures are constantly increasing fire hazards and risks, requiring intensification of prevention and control programs and modernization of techniques and methods of protection. The risks involved and the values at stake emphasize the compelling need for the general public, the public agencies, the private owners and users to integrate more completely their skills and efforts in the common cause of fire control.

More needs to be learned about fire and weather behavior in relation to fire control, and about human response in relation to fire prevention appeals. Research in these fields, together with the development of media, methods, techniques, and equipment is essential to keep abreast of growing resource demands and rising protection costs.

The military and other federal research organizations have made great strides in perfecting the use of fire as an offensive weapon. Similar research is required to perfect a defense against fire from atomic and incendiary attack. These same defensive techniques and developments will contribute materially to the control of large and catastrophic forest fires.

2—The Control of Insects and Diseases

Inroads made by forest pests on the nation's timber supply today are imperiling the forest economy of many communities. In no field of forest activity is the need for immediate remedial action more acute. To combat effectively this menace, full use must be made of the cooperative principles of detection and control as laid down by the Forest Pest Control Act (Public Law 110) enacted in 1947. To make this act and related state laws more effective, **we recommend:**

2—Greater and better-coordinated efforts by all appropriate agencies toward more effective control of destructive forest insects and diseases.

To this end, we recommend:

a) A joint public and private review of past and current research and control programs in relation to accomplishments and needs, pointing toward the expansion and coordination of research and control programs by federal, state and private groups. Special attention should be given to this study by the state pest control action councils.

b) That state and national pest control action councils review pest outbreaks, and provide leadership in obtaining cooperative control.

c) Expansion and improvement of cooperative annual pest detection surveys, to obtain adequate coverage

of forest lands subject to destructive outbreaks of insects and diseases.

d) That all forest states be prepared to cope with damaging pest epidemics by enacting enabling legislation to authorize and finance early action in cooperative control of forest insects and diseases.

e) That emergency funds be allocated in federal and state appropriations to control new and unexpected outbreaks of insects and disease at their inception.

f) Greater use of sanitation-salvage cuttings and other forest management practices known to be preventives against disastrous pest outbreaks.

g) Increased emphasis on forest management as a tool for preventing disastrous insect and disease outbreaks.

h) Practicing foresters should be sufficiently grounded in detection of tree diseases and insect epidemics that they can identify threatening depredations in an early stage.

Mounting losses from insects and diseases in all forest areas point to the urgent need for review of past research findings and control measures. The development through research of effective and economical control methods is the first basic requirement to cope with the present increasing pest problem. Such research needs to be strengthened in new work by federal, state and private forest organizations.

The Forest Pest Control Act passed by Congress in 1947 provides for cooperative programs of detection surveys and for assistance in the control of forest pests. This long-needed legislation marks an important step forward in forest pest control. For its most effective operation there is need for similar state authorization, and appropriations to control outbreaks when small. Further, the difficulty of estimating control needs in advance makes it essential to have emergency funds available so that early action is possible. This will have the added advantage of minimizing losses and control costs.

3—Control of Destructive Rodents and Other Pests

To derive maximum benefit from intensified forest practices, it is often necessary to control destructive rodents and other pests, which defeat forestation efforts by destroying planted seeds or seedlings and thereby make restocking of forest lands economically impractical. By discouraging natural or aerial restocking of harvested lands, and by reducing drastically the survival rate of planted seedlings or trees, these pests continuously hamper the effectiveness of reforestation programs. Severe losses of thrifty growing stock are also continuously occurring from porcupines and other bark-feeding rodents. To combat this menace, **we recommend that:**

3—Federal, state and private groups intensify research projects to develop and test measures for control of rodents and other pests and that results be made available for general use.

B—FOREST PRACTICES

With *protection*, the application on the ground of good forestry practices holds the master key with which to derive from forest lands their maximum and permanent contribution to American welfare. To accelerate progress already made, **we recommend:**

General Recommendations

1—Continued extension of more intensive forest management practices on all lands devoted primarily to timber production. Such practices include:

a) General application of thinnings, improvement cuttings, and other cultural practices to forestall mortality losses, obtain more complete utilization, increase growth, and improve quality.

b) Universal use of harvesting methods that insure a satisfactory new crop of trees as rapidly as practicable.

c) Progressive construction of timber access roads where economically justified into commercial timber areas to provide better protection, intensive utilization of over-ripe, dead and damaged trees or stands and thereby retain the residual trees or stands for faster growth and greater productivity.

d) Extension of public timber sales and private timber harvesting into areas yet undeveloped so as to put all commercial forest lands into actual sustained production as rapidly as possible.

The greatest need for increased growth is in trees of sawtimber size. Present annual sawtimber growth has been (1945) estimated at 36 billion board feet. This growth rate ultimately can be more than doubled under intensive forest management if the best of currently known methods of stand improvement, harvesting and utilization are promptly and generally applied. The current supply of sawtimber can be substantially increased by intensifying the timber access road program and harvesting trees of sawtimber size which are now being lost through mortality.

2—Promotion as a forest conservation measure, of the fullest possible use of the tree by encouraging improved harvesting and processing techniques and complete manufacture and merchandising of all usable wood material.

3—Encouragement of consumer demand for forest products so as to maintain markets and to develop new outlets for all usable wood material as a fundamental inducement to the greater application of good forest management practices on private and public lands.

4—That all classes of forest owners be encouraged by education and demonstration to participate in this advance in American forestry. But it rests with the administrators of public and private forests and with industries dependent on abundant wood supplies, to lead the way.

Responsibilities of Public Agencies

5—With regard to public lands, public agencies responsible for timberland administration should:

a) Provide adequate forest protection as recommended in Section A.

b) Maintain timber inventories for each management unit of sufficient detail to provide a basis for management plans and timber sales. Prepare management plans to provide for orderly harvesting of the timber crop on a sustained-yield basis at a high level of productivity and quality.

c) Provide for construction of timber access roads to permit utilization of timber, not now accessible, either to meet an emergency or to carry out management plans.

d) Accelerate the preparation of timber for sale—in accordance with the management plan—to meet market demands. This involves advertising the timber for bids, preparation of sales contracts, designating timber to be cut, and supervision of the sales.

e) Provide for adequate regeneration of forest lands through natural regeneration encouraged by correct forest practices or by planting or seeding as needed to restore land to productivity within a reasonable time.

f) Take prompt action in emergencies created by insects and disease epidemics, major fires, or large-scale blowdowns, to salvage usable timber, temporarily suspending the allowable cut quota in order to prevent waste and to reduce fire hazards, following which the land should be immediately restored to productivity.

Control of Destructive Practices

6—The development of state policies, methods or laws

by the people of each state to avoid unnecessary destruction of growing stock and young growth and to assure practices that will maintain continuous production on forest lands.

Needed controls should be developed state-by-state as local conditions and forest practices require. Painstaking discussion and explanation of proposed controls with the forest owners affected are essential in initiating such measures. The assistance to forest owners recommended in this program will help to promote compliance.

C—FOREST PLANTING

It is estimated that there are 65 million acres of poorly stocked and deforested areas, where artificial reforestation is needed or economically justified. A large percentage of these lands lies close to areas of largest populations and forest products demands. The highest economic use of such areas is timber growing; and planting and direct seeding are means of getting them promptly into production. **We recommend:**

1—Continued expansion of tree planting and seeding activities sufficient to restore non-restocked and poorly stocked forest land to productivity within a reasonable time or to introduce more desirable species. Pending the determination of acreage in need of reforestation, a planting objective of two million acres a year is believed reasonable.

2—That stock distributed from public nurseries be limited to plantings for forest products, wildlife food and cover, watersheds, erosion control, and windbreaks or shelterbelts.

In 1951, 450 million trees were distributed from federal, state and industrial forest nurseries. The current annual planting and seeding is approximately 500,000 acres, about 80 per cent of which is on private lands. Increased planting activities are important on publicly-owned lands, and on industrial lands, where necessary to maintain full production of desirable species, or for watershed protection and shelterbelts. Reforestation on the scale recommended will create new wealth for the nation and hasten balancing of the forest budget.

While there have been notable increases in acreages reforested annually during the past three years, there still are serious shortages of seeds and planting stock in most regions. Consideration should be given to improvement in quality and quantity of seed supplies and planting stock.

III—MULTIPLE-USE POLICIES

In furnishing the greatest good for the greatest number in the long run, forest areas provide many services and products in addition to timber. Conflicts arise and the highest use must be considered paramount in any given area. Under the principle of multiple use, the wise administrator will establish the required priorities and plans to enable the area under his control to contribute the maximum in products and services.

A—THE CONSERVATION OF WATER

The conservation of water has become a problem of nation-wide importance and concern. Great sums are being expended yearly to protect watershed areas or to prevent soil erosion and sediment damage by uncontrolled runoff of water. The acuteness of the situation is emphasized by the increasing numbers of areas seriously threatened by shortages of water for domestic, industrial, agricultural or recreational uses.

We recommend recognition of water conservation as of paramount importance in the management of many public forest and range lands. Public agencies should provide for:

1—Management of timber and grazing resources to improve the quantity, quality and regularity of water flow needed for domestic, agricultural, industrial and recreational use, and to prevent and eliminate water pollution.

2—Coordination of planning and application of watershed-management and flood-prevention measures on upstream forest, agricultural, and range lands with the construction of downstream flood control and water power development projects.

3—In federal dam and water reservoir projects, consideration of their impact on public and other lands and provision for replacement to the extent practical of impaired facilities and services.

4—Public acquisition of forest and range lands where watershed protection and management are of very high priority.

The Flood Control Act of 1936 and subsequent amendments passed by Congress initiated a national policy for the study and improvement of critical upstream watersheds. Reports on some 60 such watersheds have been submitted to Congress which has approved 11 of them and has authorized the recommendations for maintaining forest cover and other water conservation works. This upstream watershed program is under the direction of the Secretary of Agriculture and is now being implemented through the Soil Conservation Service and the Forest Service. The Corps of Army Engineers and the Bureau of Reclamation are charged with planning downstream storage and diversion structures.

The management of forest lands plays an important part in the success of this program. Unofficial estimates are that at least three-fourths of the total forest area, commercial and non-commercial, are of critical importance for flood and sediment control and for surface and underground water conservation.

It is encouraging to note that in addition to the public agencies, numerous organizations, privately sponsored, financed and managed, have become active in the fields of water conservation, flood-control and prevention of erosion and sediment-damage.

B—FOREST RECREATION

The expanding population of the country, coupled with shorter work hours and weeks and with a growing appreciation of the out-of-doors, has created a tremendous demand for forest recreation and has taxed the existing areas and facilities. **We recommend:**

1—Full recognition of the intangible values inherent in forests and forest lands and of their tremendous importance to the recreational, cultural, and spiritual needs of our people.

2—Provision for the preservation of special areas such as national parks and monuments and wilderness areas from any use that will interfere with the complete satisfaction of these needs.

3—Development of adequate services and facilities to permit safe use and full enjoyment of public lands by the people.

An essential phase of forest land management is the reservation from conflicting use of areas which render higher public services through recreation and inspiration. Examples of this type of management are existing state and national parks, national monuments, wilderness areas and wildlife refuges, created to preserve natural, scientific, or historical features for the enjoyment, education and inspiration of all the people.

C—GRAZING ON PUBLIC LANDS

To administer effectively public range lands, we recommend that:

1—Numbers of livestock be brought into balance with the sustained grazing capacity of the range.

2—Sustained-range productivity be improved by reseeding, other range improvement measures and better management, in full consideration of priority needs of water, timber and other uses of certain public lands used for grazing.

3—Permits to graze livestock on public lands be considered a privilege and not a legal right.

D—MINING ON PUBLIC LANDS

Efficient management of many millions of acres of federal public lands, including the discovery and development of new or known mineral resources, is in the public interest. The legitimate miner and prospector should be encouraged to carry on such work. However, widespread abuses under the existing mining laws—namely efforts by individuals to use the mining laws as a means of acquiring government lands for other than mining purposes—should be stopped. **We, therefore, recommend that:**

1—Congress revise the federal mining laws to prevent their abuse by claimants or patentees who use their claims to tie up more valuable timber or other surface resources than they legitimately need to develop the minerals.

E—WILDLIFE MANAGEMENT

Forest land provides habitat for many important wildlife species. In the formulation of forest management plans, wildlife management should be accorded a definite place, and the fact recognized that in certain areas forest practices should be modified in the wildlife interest. **We recommend:**

1—Integration of wildlife management practices with those of forestry on forest lands.

2—Development of wildlife management programs in cooperation with state game agencies for the purpose of maintaining a balance between wildlife populations and domestic livestock in relation to available food supplies.

3—That, to the extent practicable, private forest landowners should work with appropriate state agencies and local authorities to develop further the use of private forest lands for hunting and fishing which would not be detrimental to the major purpose of management, to protect the resource from fire and to establish other security measures. State and local authorities should recognize and carry out their responsibilities to protect the rights of the private landowners in this regard.

Overpopulation in certain areas of such animals as deer and elk has caused destruction of the forage, including important tree species, and starvation in the herd. To achieve a balance between population and food supplies in these areas, and to prevent the occurrence of similar conditions in other areas, it is necessary that herd control be instituted under the authority of state legislation. Likewise, the competition between deer and elk and domestic livestock for the available forage must be taken into account wherever grazing on public land is permitted.

IV—EDUCATION AND ASSISTANCE TO FOREST OWNERS

A—ASSISTANCE

Three-fourths of all commercial forest land in the country is in private ownership. It is distributed among more than four million owners in tracts ranging from small farm woodlands to large corporate holdings. The great majority of these owners, particularly in the small-ownership class, are uninformed as to best methods and techniques of managing their woodland for continuous and profitable growing of timber.

Here is the greatest field in which to increase forest production in the United States. This calls for a much more extensive and aggressive program of education and on-the-ground assistance to private owners. The problem is especially acute in respect to small owners who hold about 261 million acres or over three-fourths of all privately-owned commercial forest land in the country.

Considerable progress in this field has been made in the last decade by public and private agencies. The interest of forest industries in future supplies of raw material has brought them into this field in force. Many industry-employed foresters are now assisting woodlot owners with the management of their forest lands. This has greatly supplemented the work of a growing number of consultant foresters and approximately 400 foresters in public employ. This three-pronged drive to educate and assist owners in better management of timberland has demonstrated what can be done in this important field.

We recommend the continued, coordinated expansion and improvement by all agencies, public and private, of programs of education and technical assistance to the owners of farm woodlands and other small forest properties, and of advice and assistance to the small conversion plants in wood-using industries. This includes:

1—As a basis of federal policy and financial cooperation in the above fields, broad educational and group promotional activities should be conducted by state extension organizations; service programs and individual assistance on the ground should be directed by the state departments of forestry in accordance with federal and state policies clearly defining the limits of free public aid.

2—Forest industries which buy logs or pulpwood from woodland owners or contractors should as a procurement policy, instruct their suppliers in good forest practice, institute or expand management service programs and establish purchase procedures that will encourage good management practices by small owners.

3—Coordination at the state level of all agencies working in these fields is of utmost importance to avoid wasteful duplication of effort.

4—Expansion of forest educational and extension programs in agricultural areas is needed to reduce woodland depletion by livestock where land is primarily adapted to forest growth.

5—Emphasis should be given to the fact that the woodlot is an important resource to the farm and should be so recognized in farm planning. Forestry should be an integrated part of the activities of soil conservation districts.

B—FOREST TAXATION

If the efforts of a greatly-expanded field staff are to prove successful, forest and forest land taxation, income tax laws and forest credit and insurance must all be looked at realistically in terms of how best to promote intensified forestry practices on the ground.

The general property tax, unless specifically modified, often imposes an inequitable burden on properties devoted to the continuous production of forest crops. Usually such burdens are the result of improper assessments or unreasonable tax rates, or both. The confiscatory effect of this tax, if levied year after year on growing trees, discourages private forestry enterprise and may lead to

Newly-elected President Eisenhower made tremendous hit with AFA members when he addressed Fourth Forest Congress in 1953. Above, he is welcomed to the congress by AFA President Don P. Johnston

Three AFA stalwarts at Forest Congress were (l to r) DeWitt Nelson, California, the late W. B. Greeley, and former AFA President W. S. Rosecrans, California

CONGRESS HIGHLIGHTS

AFA program was hammered out on the anvil of public opinion as expressed at the congress. Then 93.1 per cent of AFA members gave program their unqualified endorsement, and went to work on it

Congress summary by Dean George L. Gerratt of Yale is a forestry classic

Dr. S. T. Dana chaired Higgins Lake conference, and spearheaded two AFA landownership studies

Two former executive directors of AFA put their stamp on program, Lowell Besley, Ovid Butler

destruction of forest resources with consequent harm to the nation's economy. This is especially true for stands of sawtimber which must be grown on long rotations to obtain maximum yield and value. Special taxes for such purposes as construction of dikes, drainage ditches, and other improvements may have a similar deterrent effect. The general property tax should be modified in its application to forest properties or superseded by a system of taxation more similar in effect to systems applied to other types of property.

Likewise the federal Internal Revenue Code as it applies to timber has an important influence on the decision of private forest landowners to practice the long-term forest management necessary to assure adequate timber resources upon which the nation can depend for its future requirements of forest products. Growing timber is a capital asset and, without denying any forest owner the opportunity to include in ordinary operating expenses the cost of maintenance and protection of, and other ordinary recurring expenses incident to, the ownership of his forest lands, its owners should be allowed the same capital gain or loss treatment under the income tax law as is allowed other taxpayers disposing of capital assets. Such equitable treatment encourages sound, long-term forest management and stability of ownership and communities. **We recommend:**

1—Vigorous and prompt state action where necessary to effect forest taxation systems adapted to continuous forestry enterprise and to relieve forest owners from disproportionate burdens now imposed on forest lands by the general property tax and other taxes. This action may involve new legislation, new regulations, new methods of assessment and administration, or all three.

2—That individual and corporation income tax provisions of the federal Internal Revenue Code encourage sustained-yield forest management by allowing as deductions from income all ordinary recurring expenses of tree and timber growing and further by permitting the taxpayer who owns or has contract rights to cut timber to elect to treat consistently the proceeds from timber cutting either as ordinary income or as capital gain.

C—FOREST CREDIT AND INSURANCE

Federal and state statutes and regulations have prevented the banks from accepting forest properties as collateral security for loans to finance timber growing. This restriction on forest properties as liquid assets has severely limited the sources of funds for this purpose. This has been particularly true with repect to the owners of smaller properties. Industrial and other owners of larger forest properties have often had the advantage of other credit and sources of funds. Additional provisions should be made for meeting the credit needs of owners undertaking the growing of forest crops as a business and in order to assist the flow of capital investment into forestry. National banks should avail themselves of the opportunities afforded by Public Law 285 of 1953 to make loans to woodland owners and thus provide a much needed service. The various states should be encouraged to enact similar legislation where necessary to permit state banks to function in a comparable manner and thus further expand the available forest credit facilities.

Forest fire loss experience is favorable to application of the insurance principle in a large part of the country. Such application is needed as a practical business aid to full production. **We recommend:**

1—That adequate credit facilities to encourage intensive management of woodlands and continuous production of timber be made available by national banks in accordance with the provisions of Public Law 285 of 1953 and by state-chartered financial institutions operating within the framework of similar or more liberal legislation.

2—That forest owners consider formation of a mutual forest fire insurance company or companies unless established fire insurance organizations act without undue delay to extend their operations to include forest properties at rates consistent with the risks involved.

D—EDUCATION (PROFESSIONAL)

To advance forestry in proportion to its ever-increasing importance to the nation, a sufficient number of thoroughly trained forestry technicians and specialists must be added to the ranks of the profession each year. This calls for strong professional institutions which will turn out foresters well grounded in fundamentals, as well as specialists in the various fields of research, including subjects such as forest genetics and watershed management which are not now adequately covered. There is a recognized need for an increase in practical farm forestry courses for students at agricultural colleges. Also a need exists for sub-professional training at the ranger school level. Technical conferences and exchange of information leading to professional improvement should be encouraged, including short courses in forest soils, hydrology, photogrammetry, genetics and like subjects. **We recommend:**

1—Strengthening of professional forestry training in vital fields not now adequately covered; continued sub-professional training on a regional basis where the need is evident; expansion of continuation training for practicing foresters through technical conferences and short courses.

2—That agricultural colleges offer courses in forestry giving prospective farmers, county agents, agricultural teachers and other agricultural workers an understanding of the importance of woodlands in farm economy and some knowledge of their management. Forestry should also be included in the programs of instruction of the vocational schools of agriculture.

3—Constant attention be given to ways and means of making federal and state service in forestry agencies an attractive career, including reasonable security for competent technical personnel.

E—EDUCATION (PUBLIC)

Education is a primary means by which forestry programs and practices can be continuously improved. The use of movies, radio and television has broadened the field of forestry education, both for young people and adults. Teacher training through workshops and other means and work with organized youth groups are particularly important with the emphasis on the essentiality of our forests in everyday life from the standpoint of wood production and their role in soil, water and wildlife conservation. Such programs should be worked out to fit local situations and conditions and should be conducted cooperatively with local conservation organizations under strong and well-qualified leadership. To facilitate this work, cooperative action should be initiated to designate clearing houses at the regional or state level for dissemination of appropriate films and radio and television scripts for use in public education and forestry. Better understanding of the importance of forests to the public can also be effectively promoted by a well-informed press, significant articles in periodicals, well-planned advertising campaigns and well-distributed demonstration woodlots. The importance of assembling, preserving and publishing historical material is recognized as being of major importance and should be stressed. **We therefore, recommend:**

1—Intensification of public education in forestry matters through increased use of audio-visual methods, teacher-training workshops, youth conservation camps, suitable published material, public meetings on demonstration woodlots and the establishment of apropriate clearing houses for dissemination of public education materials.

V—FOREST RESEARCH AND SURVEYS

Research is essential to forestry progress in that it supplies the knowledge which leads to better methods of growing, harvesting and utilizing forest products. Forest surveys report the conditions on the ground and point up those needing correction or improvement. Used together, research and surveys, objectively directed and integrated, can provide powerful stimulation and effective assistance in attaining the goal set forth in this program.

A—FOREST RESEARCH

More research is needed in most phases of forestry but special efforts are urgently required in certain important fields which have hitherto received inadequate attention. These are: watershed management, insects and diseases, forest genetics, utilization of little-used species, economic aspects of forest management, forest products marketing and land-use conversion. Also research of a fundamental or basic nature leading to new knowledge is essential to long-run progress and has been neglected.

A need exists for improved cooperation among participating groups and individuals. More advisory committees—composed of research specialists and those using the findings of research—should be set up without delay. The time lag between the acquisition of facts and the application of these facts in the forests, constitutes a major problem.

In view of this need for an accelerated action-program in this major field, **we recommend:**

1—Expansion of forest research to certain fields not now adequately covered.

2—Recognition of the primary but not exclusive responsibility of public agencies and educational institutions for fundamental research and industrial organizations for applied research.

3—Improved coordination of research through advisory committees and other suitable means.

4—Speed-up of publication and application of research findings.

5—Establishment of permanent study areas within virgin forest associations and other appropriate ecological areas in order to provide a more comprehensive knowledge of natural developments.

Annual expenditures for research by the Forest Service increased from $2,000,000 in 1940 to $5,400,000 in 1953. Expenditures by industries and other agencies advanced from $6,000,000 to $20,000,000 during the same period, with private research making notable progress in the field of wood use, especially wood chemistry. Cooperative research programs in which federal, state and private agencies participate have increased greatly in the last decade.

Nevertheless, a major job remains to be done. The responsibilities for that job should be shared by public agencies and institutions, business and industry, and private institutions and organizations. The responsibility for developing the fundamental aspects of the needed research should in large part be borne by public agencies and educational institutions. The forest industries have a responsibility, in turn, to concentrate on the applied aspects of research in production and utilization and to provide more of the necessary pilot-plant development for promising fundamental research leads. Industry should also sponsor more research in educational institutions.

B—FOREST SURVEYS

Basic information needed for sound planning of forestry programs and for a public understanding of the place of forests in the general economy can best be obtained through periodic surveys of the nation's forests. About two-thirds of the commercial forest land has been covered by official surveys and about one-fourth has been resurveyed. The estimates of 1952 show 1617 billion board feet of standing sawtimber; also 470 billion cubic feet in all trees five inches and over in diameter. The current annual drain (estimated in 1945) of which 3.4 per cent loss from forest fires and 7.5 per cent loss from insects, disease and wind, is nearly replaced by growth in the cubic-foot classification; but exceeds growth in the ratio of three to two in the board feet tabulation. The aggregate productive capacity of our forest lands is at least double their present growth.

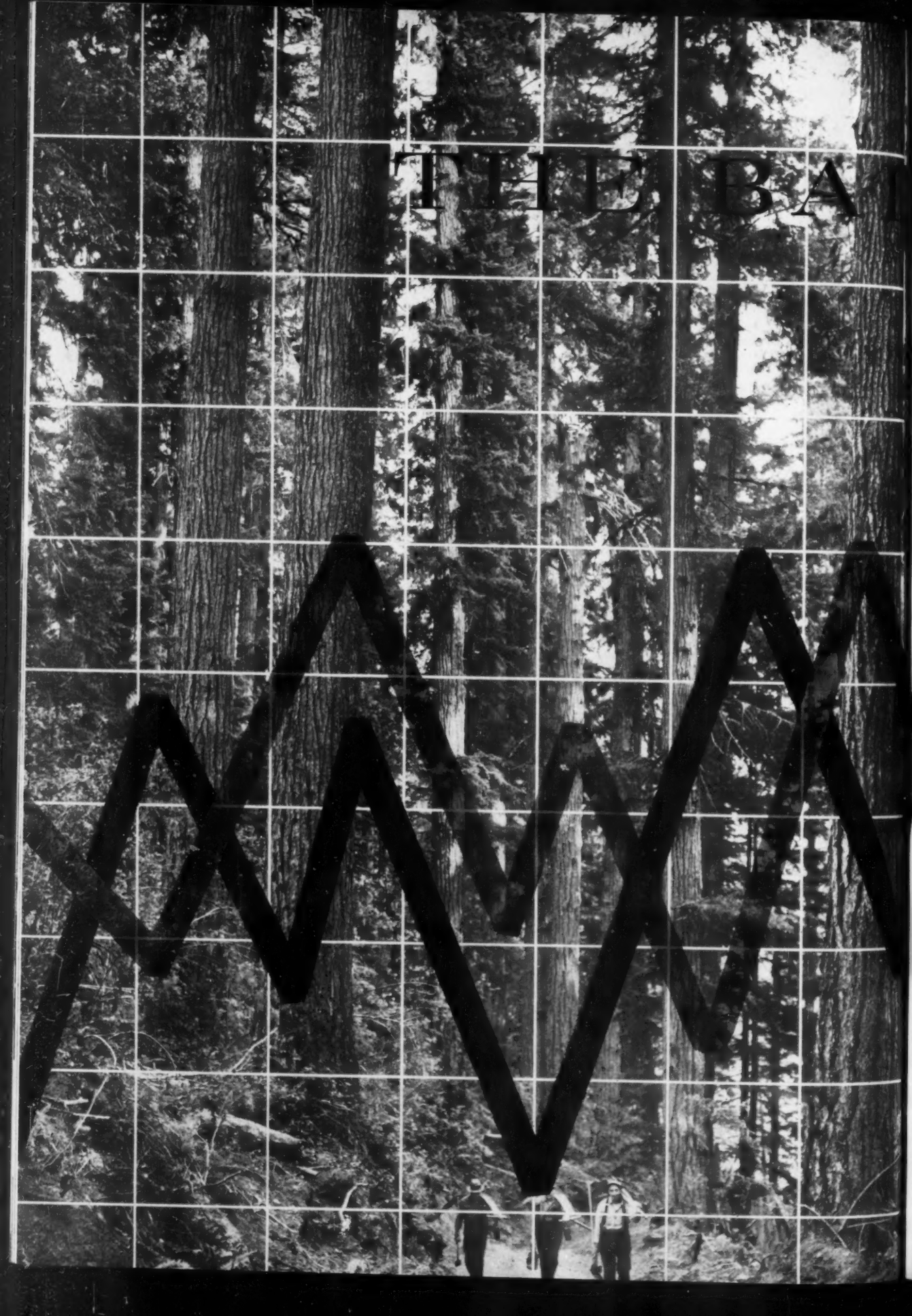
In view of the stake of local industries and the states and territories in the forest survey, their greater participation in planning and financing the work should be encouraged. These surveys should provide information on timber needs, volumes, growth rates, depletion due to cutting, insects and diseases, and site classification. They should be so designed as to provide information on a county basis, where such detail is made possible by the cooperation of state, local governmental units and industry. A review of the nation's forestry situation at about ten-year intervals is desirable. There is need for drastic acceleration of the survey rate to achieve this goal. Conducted by the research-branch of the Forest Service, new and improved techniques for making forest surveys are giving greater accuracy at less cost. **We, therefore, recommend:**

1—Continuation and acceleration of the forest survey; greater participation by states and local industries: review of the nation's forestry situation at periodic intervals; development of new and improved survey techniques for greater accuracy and lower cost.

A PROGRAM OF ACTION

This program is essentially a statement of policies, which must be put into effect by public, legislative and administrative actions and by the supporting activities of industries, civic-minded organizations and public-spirited citizens in all fields of American life.

The American Forestry Association accepts responsibility for publicizing and obtaining general acceptance of this program and, in cooperation with other private and public agencies, for advancing its recommendations nation-wide by state and national actions as they appear practicable.


THE BA
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ANCE SHEET

FOR the benefit of new members of AFA, and to refresh the memories of our older members, The American Forestry Association this month is republishing its entire Program for American Forestry as adopted by the Forest Congresses of 1946 and 1953. As you will note in the program starting on page 17, this document sets up three major goals. They are: 1) Meeting the essentials of adequate forest protection; 2) Improving the national timber crop in volume and quality; 3) Obtaining the maximum of economic and social services from our forests.

Coupled with this effort, in a journalistic attempt to sample representative opinion, AMERICAN FORESTS invited forestry leaders around the country to express their views as to how, in their judgment, the program is progressing, and to point out both the strengths and the weaknesses of the program to date. At the outset, it should be stressed that this sampling of opinion is not a study. It is merely a reflection of the ideas of more than 100 individuals from the various categories of forestry activity. Some of these individuals attended both the Higgins Lake Conferences and the Third and Fourth Forest Congresses.

To systematize this presentation of views, AMERICAN FORESTS has divided the replies into three principal categories. The first we have entitled "The American Public," by which we mean such organizations as The American Forestry Association, state forestry associations, federal and state organizations, and other diverse groups. The second we have entitled "The Academic Viewpoint," by which we mean the representatives of the forestry schools and the spokesmen for the Society of American Foresters; in short, the professional institutions of forestry learning and their professional organizations. The third category is entitled "Wood Industries and Labor," including representatives of individual firms, unions, industry associations, and chambers of commerce.

While differences of opinion naturally arise in a presentation of this nature, it is our belief that 1959 finds the various segments of forestry activity more closely united than at any time in the past. If we didn't believe that, we would never have tackled this job in the first place. We regret, of course, that not everyone had the time to make a reply to our questionnaire, and we regret especially that some of those individuals who were most sharply critical of AFA at the Fourth Forest Congress did not avail themselves of the invitation to comment on our progress, or lack of it.

For an estimate of this sampling of opinion, turn to the editorial on page 11.

THE AMERICAN PUBLIC

The American Forestry Association

J. J. Storrow, Boston, Massachusetts—"This is a good idea. From the association's point of view, the Southern Forest Fire Prevention Conference at New Orleans and the amendment of the mining laws on public lands represent the most notable single achievements in five years. The failure of the association and forestry in general really to come to grips with the problem of forest management on small ownerships is, in my opinion, the most acute shortcoming."

Don P. Johnston, president, AFA—1) ". . . owing to lack of sufficient funds for construction of access roads and other physical improvements, the public forests have been forced to mark time for several years in all three prime goals of our program. There are now encouraging signs for reasonably prompt im-

provement. 2) By the employment of more and more foresters, the construction of needed facilities, and the recognition of the principle of multiple use, the industrial forests, or at least a large percentage of them, have recently made marked advances toward accomplishing all three goals of our program. 3) The question can well be raised as to where AFA and forestry have failed in reaching myriads of small forest owners in the nation. Have we taken the easy course of applauding the successes on the public and industrial forests and ignoring the needs of this third group?"

Dr. Wilson Compton, Herndon, Virginia—"I would say that the most notable gain has been in the increased public acceptance of the doctrine of multiple use of our forests. This, in a way, has added significantly to the historic doctrine of the 'greatest benefit of the most people in the long run.' I am also greatly impressed by the steady progress of the tree farm movement throughout the country.

"I am not sure that there is any development which might be described as a 'notable failure.' I would say, however, that among the weaknesses in our suit of armor are, first, skepticisms, occasional antagonisms, and sometimes hostility of certain special interests which would subordinate the general good implied in multiple use to a single objective. I think there is more of this than there ought to be. The second weakness, I would say, is the continuing inadequate support of AFA. I think something is being done about each of these, and I certainly would not regard them as 'failures.' "

W. S. Rosecrans, Los Angeles, California, past president of AFA—"Since the adoption of AFA's program, we have made great gains in forestry, particularly in connection with the publicly-owned forests and the larger tracts of privately-owned forest lands. However, work in improving practices on small forest tracts and farm woodlands has been slow and is not very satisfactory. There has been increased recognition of the need for expanded forest research. Progress in this area is very encouraging. Public understanding of forestry in the United States is improving, but there still seems to be too much emphasis on the aesthetic side of forestry, recreation and the special uses, and not sufficient appreciation of the basic economic facts of life affecting soil, water, and the continuity of the supply of useful products from our greatest forest resources."

Kenneth B. Pomeroy, chief forester, AFA—"Although The American Forestry Association long has been a powerful and beneficial influence for wise use of the nation's forests, its voice is not being heard by those who now need it most—the millions of small woodland owners. AMERICAN FORESTS magazine is not being read by very many farmers and other small landowners in the eastern states. Yet these are the people who control most of the forest land and manage it least. They need to acquire an understanding and appreciation of the principles of good forestry practice.

"How can these people be reached?

"We need a good grass-roots campaign that will stimulate local action. Heretofore we have concentrated upon broad national and state programs. And we have been successful, too. Now it is time to launch an attack community by community. New industries, better markets, and other economic incentives are the first order of business. As a North Carolina banker recently said to me, 'You foresters are terrible salesmen, with your prattle about future needs. Show me how to make a dollar and I'll listen to you.'

"Then too, good forestry practices must become fashionable. We must build up a tradition. Just as the successful farmer is kown among his neighbors as a man who plows a straight furrow, so must the woodland owner be acclaimed among his peers for good forestry."

Ovid Butler, former executive director, AFA—"While there are now indications that the Department of

(*Turn to page* 49)

THE ACADEMIC VIEWPOINT

Society of American Foresters

Henry Clepper, executive secretary—"The AFA program had a three-point goal. First, meeting the essentials of adequate forest protection. Second, improving the national timber crop in volume and quality. Third, obtaining the maximum of economic and social services from our forests.

"We have not had conspicuous success with any of the three on a national basis.

"Forest protection—from fire, insects, and disease—is far from adequate. We still have states without 100 per cent organized fire control; this, mind you, after a half-century of educating the public and public officials to their responsibilities. It is not a condition of which America can be proud.

"In the South, the timber crop is improving rapidly in volume and quality. Elsewhere it is improving gradually, but probably not fast enough.

"Greatly accelerated economic and social benefits are possible from our forests, and are being realized in increasing volume yearly. In this sphere, we have probably made the greatest progress since the AFA program was adopted."

Forestry Schools

S. G. Fontanna, dean, School of Natural Resources, University of Michigan—"I have checked the AFA program, and my conclusion is that since 1954 there have been no really notable gains nor any notable failures. However, there has been for the most part considerable progress. I would categorize as follows:

1) Rate of Progress Good. a) Forest land ownership—Dr. Dana's reports on California and Minnesota should furnish guidelines and stimulation for other states to follow.

b) Forest fire protection — The Southern Fire Conference provided impetus in that area where it was most needed. The Battelle study has shown the necessity for maintaining and, it is to be hoped, increasing Clark-McNary Sec. 2 appropriations.

c) Recreation—Mission 66, Operation Outdoors, and creation of the ORRRC marked a considerable increase in pace.

d) Mining on public lands — If any gain could be called notable, this would be it. The AFA committee did noble work.

e) Forest research, pulp and paper—This has been outstanding and productive.

f) Education of public—Progress by the states in this area has been excellent, particularly in conservation education at the primary and secondary school levels.

2) Rate of Progress Fair. a) Insects and disease control—Detection systems in the states have improved considerably; some success has been achieved with spraying programs, but we need much research to determine results on both forests and wildlife. Basic research on insects and disease badly needed.

b) Assistance to private owners—Good progress made by private industry, but federal and state programs have improved little.

c) Water — Certainly a greater public consciousness of water problems, which would help motivate solutions. Still no firm public policies, and the principal federal agencies still go their own merry way.

d) Forest Research—Congressional support is growing, but funds tend to be earmarked. Better support of university research by industry, but still very little. Basic research badly needed in several fields. While research has been good in pulp and paper, research in other forest products has been slow.

e) Forest Practices—Some progress has been made by state and federal agencies, which are still undermanned. Best progress has been shown by big industry. Forest Service needs access roads to get out mature timber in West. Planting is increasing, particularly in the South.

3) Rate of Progress Slow or Negligible. a) Grazing—little change; b) Taxation—little change; c) Credit and Insurance — bankers have loosened up a little on credit; d) Forest Surveys—progress slow; e) Education, Professional — Some curriculum gains in specialization. School instructional standards still not well defined and very uneven. Establishment of new forestry schools, not needed, will further tend to depress

(*Turn to page* 51)

WOOD INDUSTRIES AND LABOR

Charles A. Gillett, American Forest Products Industries, Inc., Washington, D. C. — "We feel that notable progress has been made since 1954 in the following fields covered in the program: protection against forest fires, improvement of forest practices, forest planting, forest recreation, mining on public lands, and assistance to forest owners.

"A significant contribution to the improvement of forest practices has been the growth of the industry-sponsored American Tree Farm System. At the start of 1954 there were 4,878 certified tree farms enrolled in the program in 36 states, with a total area of 30,129,256 acres. On January 1, 1959, the program was active in 46 states, the number of certified tree farms stood at 14,073, and the acreage under management was 48,421,366. Sponsors expect the certified acreage to pass the 50 million acre mark in 1959.

"Industry has played an important part in the progress made in tree planting over the past five years. In 1954 the forest industries operated 15 forest tree nurseries with a total production of about 50 million seedlings. At the beginning of 1959 there were 26 industry-operated nurseries; their output was 187,311,000 seedlings.

"In the field of forest recreation there has been much progress by the industries since 1954. . . . In 1958 AFPI made a survey of recreational developments on industry-owned forest lands. Some of the significant findings: most industry-owned forest lands are open to some form of recreation; over 3,000 miles of hiking trails have been developed, most of them in the past five years; seven companies employ recreational planners; 65 companies operate public parks; 31 companies employ game management specialists, all hired within the past five years; over 42 million acres of company land have been opened to public hunting, and more than 44 million acres opened to fishing.

"Technical assistance to forest owners is being provided in increasing measure each year by the forest industries. . . . In 1958 a survey made by AFPI showed 345 company-employed foresters working full or part time giving assistance to others. The Tree Farm Family concept—an arrangement whereby wood-using companies give technical assistance to neighboring woodland owners in return for certain considerations—has spread over a wide area since 1954. Then there were three Tree Farm Families in as many states. At the start of 1959 there were 18 Tree Farm Families operating in 12 states. Others are in the process of being organized.

"In our opinion, progress in the past five years in the following elements of the second AFA program has been only moderate: control of insects and diseases, responsibilities of public agencies in administration of government lands, conservation of water, forest credit and insurance, professional education, public education, forest research and forest surveys.

"We believe that little or no progress has been made over the past five years in these aspects of the program: forest land ownership, control of destructive rodents and other pests, and forest taxation."

Henry J. Malsberger, Southern Pulpwood Conservation Association— "From the point of view of the Southern Pulpwood Conservation Association, AFA's Program for American Forestry has made substantial gains. One example was the successful New Orleans fire conference. This was a significant step forward. In more general terms, the stand for the wisest use of our forest resources is deserving of special commendation. In brief, to see what needs to be done, we need only listen to some of our lay friends to know that education is a never-ending task. It seems trite to boil down big problems into such simple terms, but it is our view that more and better education is our need."

Peter E. Terzick, Editor, *The Carpenter,* United Brotherhood of Carpenters and Joiners of America — "Looking back over the past five years, it seems to me that the greatest gains forest conservation has made revolve around growing public awareness of the problems. The general public is better informed and more keenly interested in conservation than ever before. Even the better budgetary treatment the Forest Service has received from Congress in recent years is, I think, a reflection of this awakened public interest. Cer-

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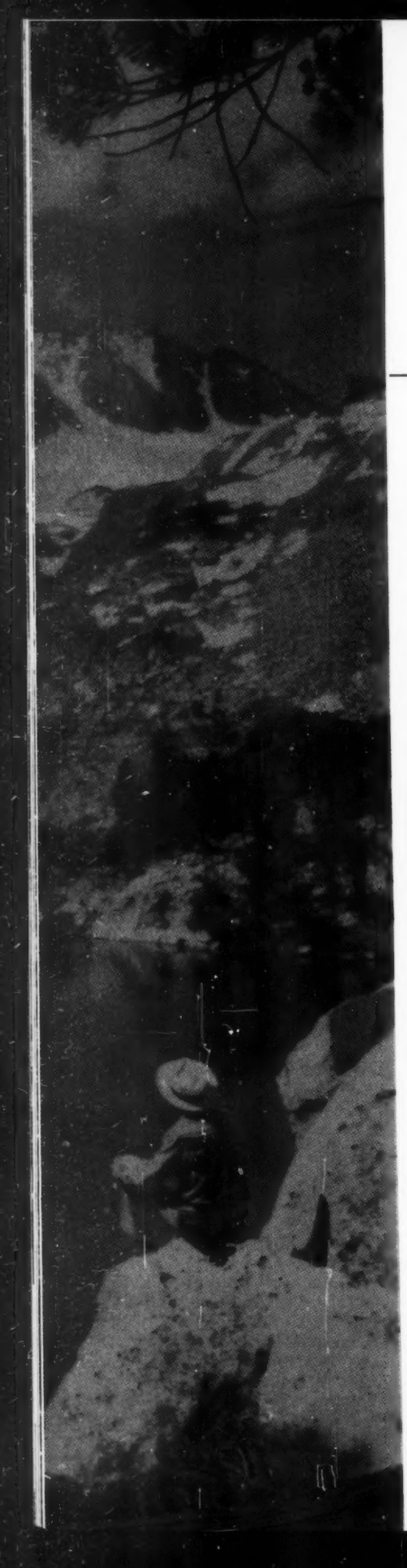


WHAT IS MUT

THE term "multiple use" as applied to land management is often misunderstood. Yet, despite its dubious interpretation, it is widely used. As a common term, therefore, it needs clarification.

One of the main reasons "multiple use" has vague connotations is that it describes a concept rather than a system or method of land use. As a concept it is not subject to precise and universal meaning when applied area by area, but has broad, over-all applications and significance.

One forest may have major value for sawlog production and subordinate values for recreation, water yield, grazing by domestic livestock and wildlife, and mining. Another forest may have little timber production but have vital recreation and watershed values. Actually there are innumerable combinations of use in each area varying with the combination of resources available.

As a general rule, however, multiple use is simply a concept of management which involves a combination of uses or services of the land in such a way that full utilization consistent with managerial objectives is realized. This presupposes that uses and services will be combined in such a manner that they are complementary, insofar as possible. When this is not attainable, minor uses must be adjusted to exclude conflict with the major or dominant use or uses.

WILDERNESS AREA

Restriction of uses, such as this wilderness area, is not incompatible with multiple use when area involved is in a broader area committed to full use. Under full use all resources make their maximum contribution, insofar as they are harmonious in multiple use pattern

The multiple use concept is applied to large areas, such as watershed units. As such, it is a misconception if it is meant to apply specifically acre by acre. If, in the process of application, multiple use of individual acres is obtained—and this does happen frequently—there is no conflict with the definition; but such pinpoint application is purely incidental and is not intended or necessarily desired. The dedication of individual acres to single uses within a management unit is a perfectly logical procedure consistent with the multiple use concept.

In applying multiple use to an appropriate area, the first determination involves a definition of land management objectives. These objectives are those of the land manager or owner, and may be determined by a number of factors. On private land it probably means that the objectives are influenced most strongly, and properly, by profit considerations. On the public lands it may mean full use which is designed to satisfy the over-all public needs and may or may not be tangible as measured by income. However, irrespective of the ownership, the objective of management must be clearly understood prior to any effort to apply the multiple use concept.

Once objectives of land management are defined, the techniques of using the individual resources in a manner complementary to each other come into play. If all values and services can be used to a maximum without conflict, the ultimate is obtained. However, such full use isn't usually attainable, particularly under intensive management. In short, a harmonious combination of uses to arrive at the maximum over-all service from the land usually requires some concessions in individual uses. In a managed forest the

(*Turn to page* 60)

TIPLE USE?

By CHARLES A. CONNAUGHTON

TIMBER

There are numerous values and services available from forest lands. When these resources are managed so that the contributions from a combination of uses is greater than that from any single use, then multiple use is obtained

CAMPGROUND IN TIMBER

Harmonizing recreation use and timber production frequently requires an adjustment in both uses to obtain the maximum contribution from a combination of them. Skillful management methods are necessary to resolve use conflicts

WATER

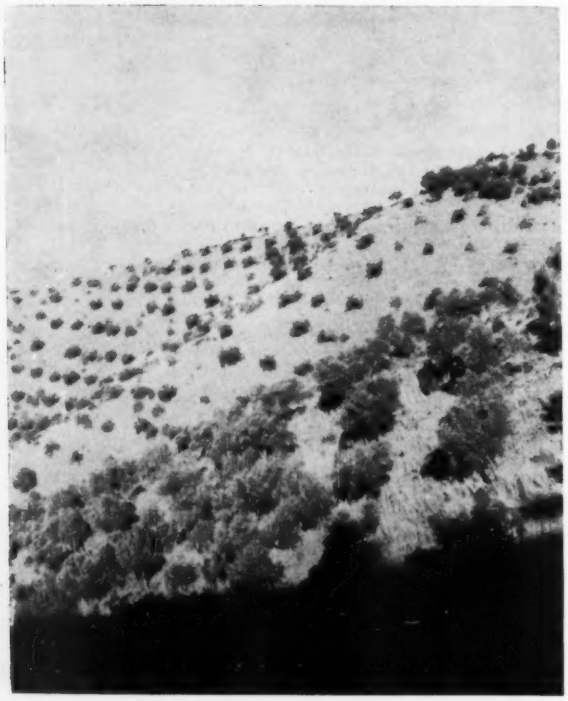
Managing forest lands to produce the maximum yields of usable water can be achieved. Sometimes adjustments must be made to insure maintenance of satisfactory watershed conditions over the previously accepted adequate standards

GRAZING

Grazing by domestic livestock is a sound use of the forage in the forest under the multiple use concept. Conflicts can arise when grazing is permitted, but as with any other use proper adjustments can eliminate these difficulties

Steep hill on the Malaga-Granada road is planted to pine. The thriving trees have almost stopped erosion in this hillside region

In the province of Malaga thousands of olive trees have been planted on hillsides to prevent erosion



Excellent stands of natural pine may be seen in the San Rafael Forest located in Guadarrama Mountains

Forests of Spain

By HENRY S. KERNAN

THE Iberian peninsula is an enormous profile, gazing forever toward the western sea. The neck reaches almost to Africa, while the high crown of the Pyrenees both attaches to and cuts off the rest of Europe. A lonely bridgehead between the two continents, Spain blends the bright warmth of one into the lush greenery of the other across the high, windy plains of Castile. Botanically, Spain and Portugal are rich; and if, forestry-wise, they appear poor, this condition stems more from their history than from any inherent inability of the climate and soil to grow trees. They have gone through the cycle of forest abundance, famine and slow re-growth. Now reforestation is closing the gap of wood deficit and transforming the landscape. Backing it is a conviction that trees are a key to the future. Every province can and must grow them. Last year alone, Spain added 350,000 acres of new forest to the 2.5 million acres she has planted in the last two decades.

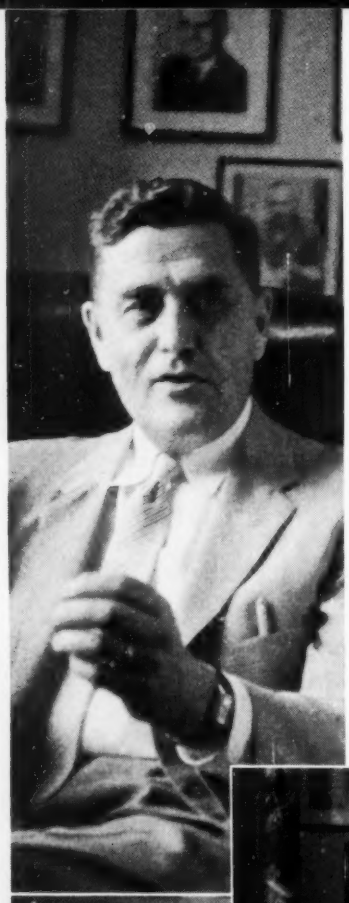
Suppose the peninsula were to sink a few hundred feet into the sea. Most of Portugal would disappear, along with a big chunk of the flat, hot, and low-lying Spanish province of Estremadura. But the essential configurations would remain — the wind-swept uplands of Castile and La Mancha, closed in by mountains that parallel the northern and southern coasts and invade deeply the steep-sided east-west valleys.

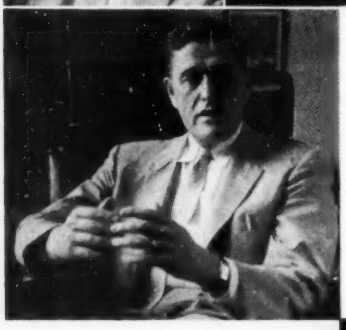
Forests once covered almost the entire surface of Spain. They did so when pre-historic man was painting in the caves of Altamira the boar and bison, both forest dwellers. The forests were principally of such nut-yielding trees as oak, chestnut, beech, and stone pine, well adapted to the needs of a hunting and food-gathering folk. They grew mostly in stands open enough for forage and for wheat and barley to sprout. Later, when Spaniards put to sea in ships, their native forests supplied the oak timbers, the pitch and the oarstock. Under Roman influence, they became a people of the olive and vine, grain eaters by preference, with neither the tools nor the inclination to do away with the still-dominant forest.

The essential fact of Spanish history before the discovery of America was the Moorish invasion and the turbulent reconquest that culminated with the fall of Granada in 1492. During these eight centuries, a profound change came over Spanish life. Spaniards ceased to be farmers and became instead soldiers and herdsmen. The castles and stock driveways are now for the most part abandoned, but they made a lasting imprint on world history. With their

(*Turn to page* 52)

Pines for resin production grow in the dry, sandy soil of Valladolid Province





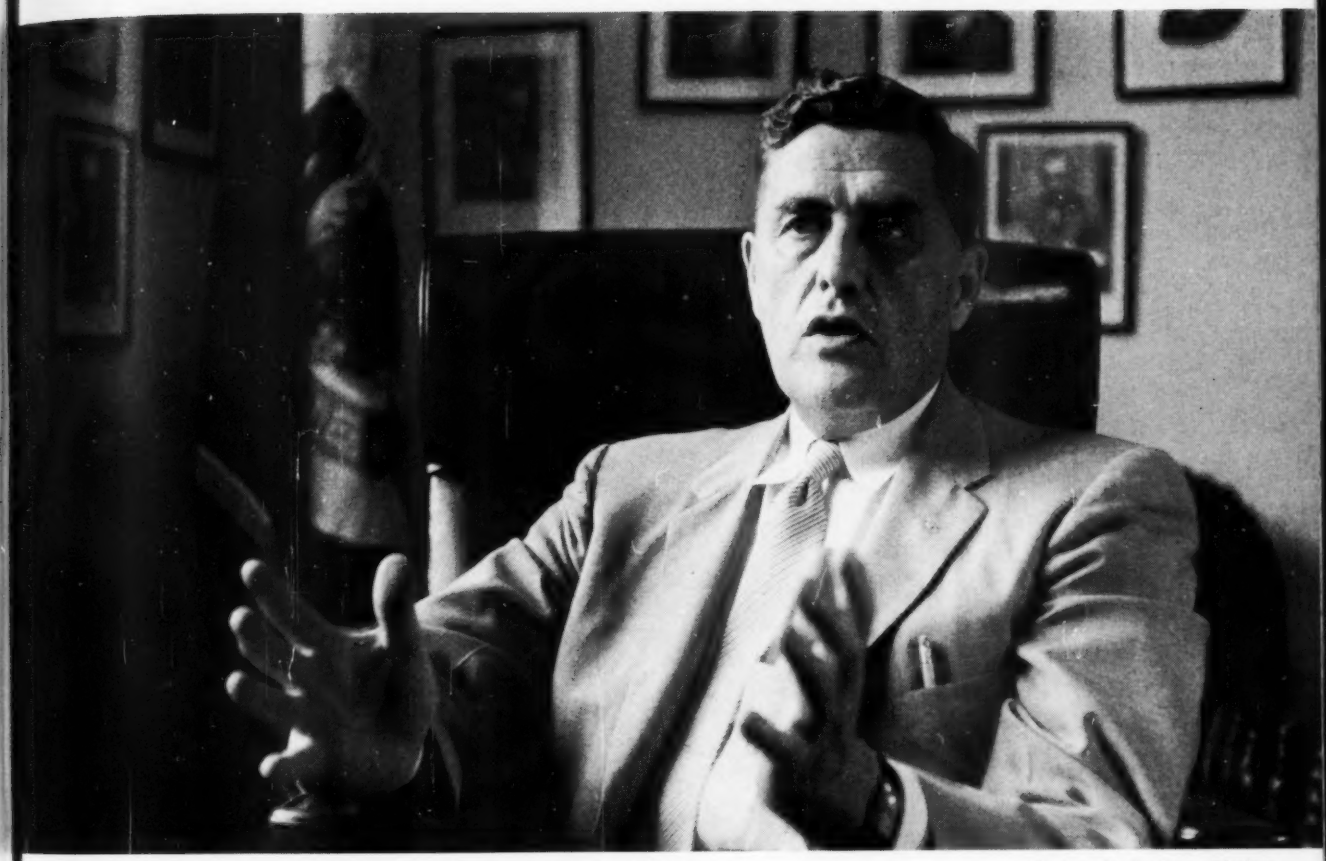
FOREST CONGRESSMAN

By KENNETH B. POMEROY

INCREASING pressures for outdoor recreation pose a great challenge to the private enterprise system. Can private forestry meet these demands, or must we resort to public funds? In my own state of Maine some landowners—not all of them, mind you, but some—are beginning to restrict their cutting along stream banks and scenic roads in order to protect recreational values. People are permitted to hunt and fish on company lands without restriction. Some provide other facilities. As long as there is a possibility of success, I am going along with these efforts to meet recreational needs under private initiative before greatly expanding public ownership."

This revealing expression of a "Down Easterner's" basic belief in self-sufficiency came from the ranking Republican member of the House Subcommittee on Forests, The Honorable Clifford G. McIntire, during an exclusive interview for AMERICAN FORESTS magazine.

The origins of such a philosophy are easily discernible. The creed formed as the boy matured in an Aroostook community, where lumbering and agriculture are the principal sources of income and the forests extend westward in an unbroken



The Honorable Clifford G. McIntire, U.S. Representative, Maine

Photographs by Vince Finnigan

expanse for 100 miles to the Canadian border. The forest industry began in 1607 with the launching of the "Virginia" at Popham Beach. The state's economy has been anchored in its forests ever since. Today forest-based industries lead all major enterprises in the number of full-time employees, in salaries and wages paid, and in value added through manufacture. Furthermore, 86 per cent of the state's land area is wooded, while only one per cent of the commercial forest land is in public ownership.

After his election to Congress, Mr. McIntire made nationwide inspections of the national forests and attended the 1957 FAO Forestry Conference in Rome, Italy. At the same time, he kept abreast of conservation activities as a member of The American Forestry Association.

When questioned about the proposed Allagash National Park, Mr. McIntire said, "The state should take constructive advantage of all opportunities to develop its total resources. But it must be careful not to set aside too much area in a way that blocks future development. An Allagash National Park would involve over 700,000 acres of some of the best woodland and would also restrict hunting, now a major activity. I question if this is in the best interests of either recreationists or the economy of the state of Maine."

Does this mean that you favor or oppose creation of a National Wilderness Preservation System?

"Let's say I have some reservations about it," he answered. "We have to recognize the increasing need of areas for recreation. Within the total group of users, there are some who are attracted to wilderness, and we must preserve some areas for them. But these people do not represent great numbers. There are many campers and other automobile recreationists who have neither the time nor the equipment required to explore wilderness. Their needs must be provided for also.

"Then too, you cannot separate recreation from economics and the profit motive. Recreation is a big business, grossing some billions of dollars each year. All these factors must be given due allowance in coming to sound decisions, decisions that are not too extreme in either direction. Usually, keeping a middle course represents the best policy.

"The present setup for administering the public lands," he continued, "is satisfactory. I realize there are areas in need of preservation. This can be done now. The bill for a wilderness system, as it is now written, does not fit my pattern for multiple use of public lands."

Could the state of Maine set aside some wilderness of its own?

"I do think there is merit in the state's keeping this in mind. It is not entirely a federal responsibility at all," he replied.

Does your bill H.R. 7200 for a Co-operative Forest Recreation Program mean that you think local communities should help build public facilities?

"We must remember that recreation is important economically as well as socially. It is the life blood of many communities. Therefore they should share in the program, and they need an incentive to do so. For example, last year I visited a western recreational area where 90 per cent of the cars bore license plates of that state. In another community the citizens placed a great deal of emphasis on drawing people to their area. Yet they had no place to put visitors except upon the public land.

"In my bill, I propose to set up $5,000,000 for matching purposes to encourage local communities to help

(*Turn to page* 62)

HOW TD-24's

walk out with all the load

the choker-setters can hang on!

—for F & J Logging Co., Oakland, Oregon

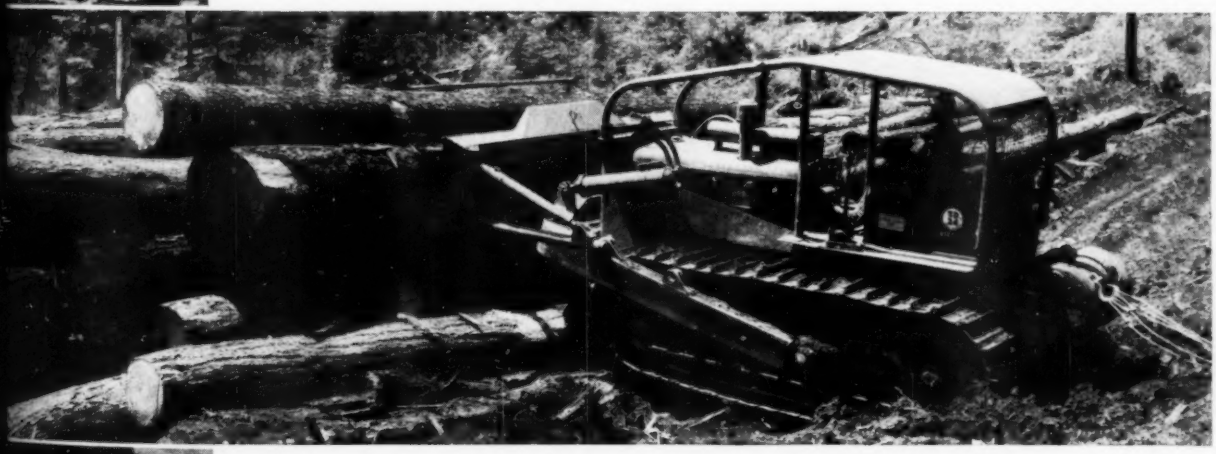
F & J Logging Co., have proved their torque-converter TD-24's "walk out" with as big a log load as the choker-setters can hang on. Walk over the grades with big loads—take them 'round the turns without trouble or lost time!

International TD-24's can hand you a dividend as big as 50% in log-skidding capacity—compared to same-sized, clutch-steered king-sized crawlers. And in most tough-terrain conditions, a "24" can bench out logging roads twice as fast as competitors that drag a "dead" track around on turns!

Load-limiting "dead-track drag" eliminated! Exclusive, years-proven TD-24 Planet Power steering makes the big difference. Planet Power steering gives you full-time "live" power on both TD-24 tracks—full-time separate and positive control of each track! And full-time, on-the-go power-shifting. Load-limiting "dead-track drag" is eliminated. You get full-load drawbar pull—full-blade push—where you can only part-load other rigs!

Hi-Lo power-shifting, too! Planet Power steering also gives you famous Hi-Lo range power-shifting. With 2-finger ease, you instantly adjust speed to the load without stopping or declutching, going forward or in reverse. Simply flick steering levers into the proper range, and clip capacity-gaining minutes from log-skidding or shuttle-dozing cycles!

Prove what it means in earning capacity to get Planet Power steering logging dividends of up to 50%. Compare TD-24 benching performance for building road up to twice as fast as ordinary rigs! Try stall-preventing Hi-Lo shifting! See your International Construction Equipment Distributor for a demonstration!



Another job for F & J's 24's is decking Douglas fir logs at a truck landing. F & J Logging Co. uses two TD-24's, a TD-20, and a TD-9 to take out 20 million bf of timber per year—part relog, part virgin stands!

Even with a 5,000 bf "turn," one of F & J Logging Company's TD-24's easily makes an upgrade turn—because of "live track" steering with both tracks pulling full time. Torque converter teams perfectly with Planet Power steering—to adjust load and speed to engine output, and keep big loads on the move through tough spots!

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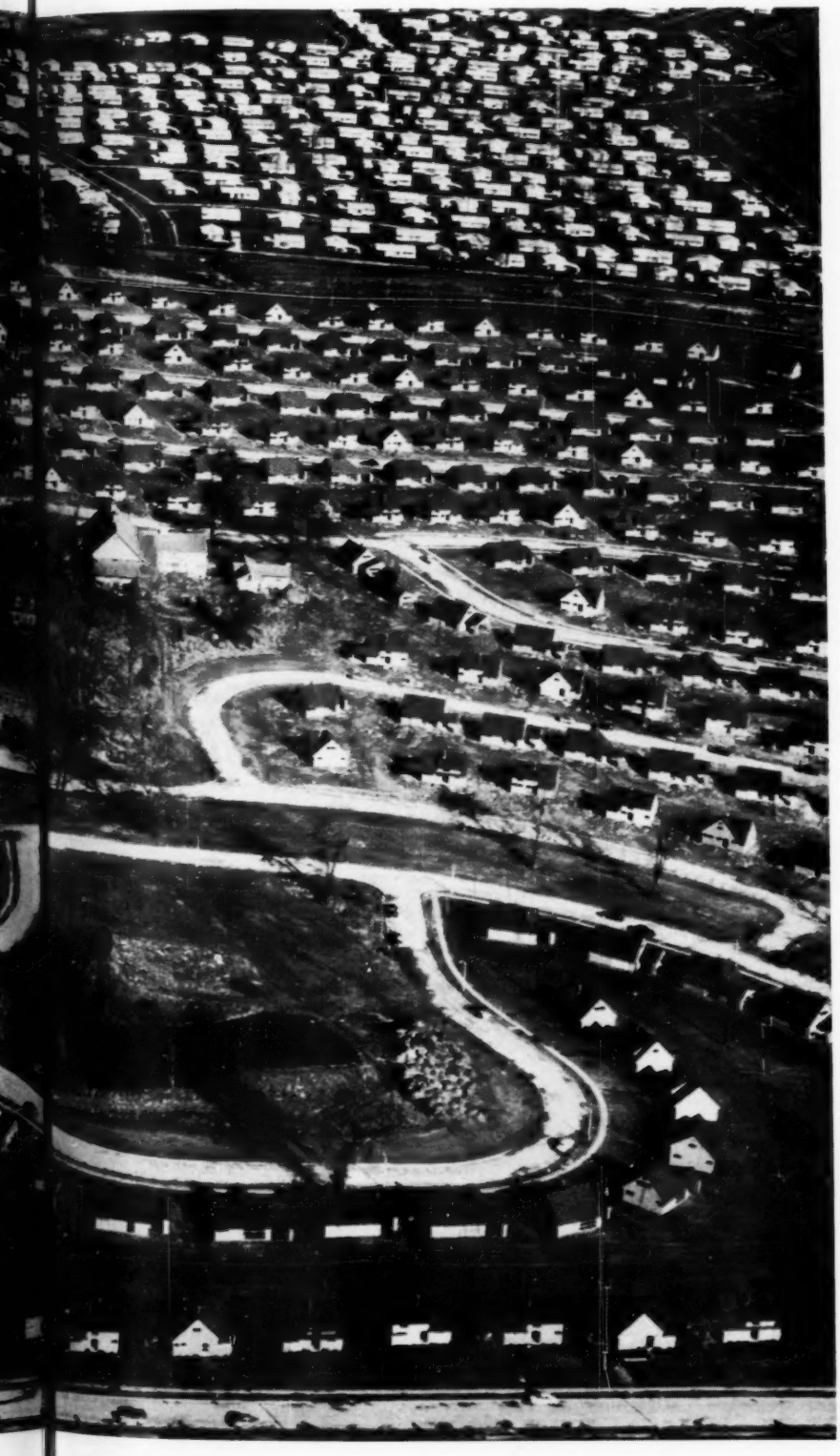
CONGRESS

A MILLION WATERSHEDS

By JAMES B. CRAIG

Photographs by Vincent Finnigan



WHAT is a watershed? If you live under a roof you are, or should consider yourself, the custodian of one. A watershed is any region or surface that receives and distributes water. Thus a watershed can be thousands of square miles in size, such as the Potomac or Delaware River watersheds, or it can be the roof of your home, which probably feeds water down a drainpipe.

But whether it is your eave spout or the Colorado River basin that serves as the drainage area, that water is going somewhere. How it gets there, what it does to other peoples' property en route, and what condition it is in when it reaches its ultimate destination are major conservation problems of our time. It is also *your* problem, whether you live in a suburb or on a farm.

That, in simple terms, was the message the Rock Creek Watershed Association of the District of Columbia and Montgomery County, Maryland, presented to delegates to the Sixth National Watershed Congress, May 25-27, in Washington, D.C. That message, plus what the host group showed the delegates on the ground, was something of a blockbuster. Some western delegates could scarcely believe their eyes—that such pressure on land exists. Even local people who took the tour had their eyes opened.

"This business really begins at home," one Maryland resident said.

The small but active host group, headed by President Lathrop E. Smith, calls Rock Creek a "Rurban" watershed. Yes, that's a new word in the language, coined to fit the need. It is a combination of the words "rural" and "urban," and the transition from open country to built-up city.

Actually, it is the story of a sea of expanding rooftops that are extending deeper and deeper into Maryland countryside. As one Marylander commented later, "What they said, really, is that where there was once one watershed in pasture, cropland, and wooded countryside, there are now millions of little watersheds in the form of rooftops, with millions of attendant little problems: land stripped of vegetation, trees bulldozed out of existence, pollution problems, runaway soil—all adding up to wasted re-

William M. Blair, of the *New York Times*, served as moderator at a "Meet the Public" panel on watershed problems. Distinguished leaders participated in this star event

sources unless they are controlled."

That's about it. But we are getting ahead of our story. Rock Creek watershed is an area of approximately 76 square miles, containing the homes of over 250,000 people in 45 communities and ranging from highly urban to farm and woodland areas. In the entire county (Montgomery) reside 335,000 people. This population has doubled in the past ten years. It is expected to double again in the next ten. As Montgomery County Council president Stella B. Werner told the delegates, "That's why they call Montgomery the 'bedroom' of Washington."

Starting in the heart of Washington near the Lincoln Memorial and pointing like a finger into the heart of the county is a park. This is world-renowned Rock Creek Park, which visitors from abroad have often called the loveliest in the world. Much of the water runoff from nearby Rock Creek watershed flows through this park via Rock Creek.

This brook, under normal conditions, is a delightful stream. Beautiful beeches, tulip poplars, dogwoods, and other species adorn its banks. It is a flyway for a great variety of birds during all seasons of the year. Opossums, rabbits, deer, and even an occasional bear come roaming down its banks. Delegates in their buses waved to riders cantering along its banks. They saw hundreds of children at play in numerous recreation centers.

They also saw filthy, mud-brown water as ugly as sin flowing down the creek bed. They saw places where stream banks had been worn away. They saw deposits of silt—rich topsoil from up county and beyond. They saw trees that had been bowled over by flash floods. Even so, they didn't see what a bad actor this little creek can really be and has become in recent years. They didn't see whole areas of park awash as many of us have seen it, although films by Forester Bernard Frank (now in India) of the creek in some of its wilder moments were displayed.

Nor did the visitors see, nor could they know of, the continuing battle that is being waged to protect this park and other creek beds that feed into it from the maze of highways and roads proposed by developers—plans that come off the drawing boards like plans from so many assembly lines. But they got the idea. Mr. Smith and his cohorts saw to that.

For many years, visitors learned, Montgomery County was rural. Then the inexorable march of the rooftops began. In the last election the balance wheel was inevitably tipped. A reform slate of suburban candidates, primarily concerned with mounting school needs, swept into office, putting the rural people out and suburban people in. But the new slate is learning that it inherited a lot of problems in addition to schools. Not the least of these is how to preserve what natural beauty is left while providing adequately for the needs of a growing population. This problem is compounded by the fact that Montgomery—the "bedroom" of the nation's capital—grew like Topsy with all too little planning. Consequently, the booming area today faces the problem of where to put the necessary new highways and other developments without completely ruining closely-knit residential suburbs that don't intend to bow to the risks of commercialization without a fight.

Dust swirled high as the water-

***American Forests* display at Watershed Congress. Left, Harry Mosebrook, Weyerhaeuser Co., Paul M. Dunn, St. Regis Co., H. B. Shepard, AFA board member, Fred E. Hornaday, AFA executive vice president, and Howard Mendenhal, small watershed specialist from Illinois.**

shed buses, each adorned with big banners, passed through seemingly endless developments near Rockville that were bare of so much as a blade of grass, and glimpsed new homes in new subdivisions where every single tree had been obliterated by the bulldozers. Telltale gullies meandered down barren slopes, a mute reminder that silt seen earlier in the capital had to have its origin someplace. The elimination of the trees, in particular, seemed to set the teeth of some of the visitors on edge.

"I've seen developments, but I've never seen a development where *everything* was stripped, including the trees," one Oklahoman muttered.

Flash floods and hard rains, naturally, have played havoc with these areas. Water pouring off the rooftops and over scantily-covered land too thin to produce good grass, as well as water that pours off the scalped land, has cut ugly gashes in the earth in its pell-mell rush to Washington's Rock Creek Park and the Washington harbor.

What is being done about it? The county is trying. Mrs. Werner told how interested groups had conducted an all-day meeting to propound what she called "anti-bulldozer" ordinances. Apparently, the developers are taking the hint. On their own initiative they are now urging their members to provide for water runoff by terracing slopes, building little dams at the foot of slopes, seeding land which is to lie idle for some time, and other protective measures.

Mr. Smith said that his association, the Montgomery Soil Conservation District, and the Montgomery County Council have applied to the Maryland State Soil Conservation Committee for assistance in planing a project under Public Law 566. This plan would see the construction of two floodwater retarding structures, including storage for wildlife and recreational purposes; completion of land treatment of remaining farm land in the county (some 250 farms), including contour planting and strip cropping of cropland, seeding and improved management of pastures, protection of woodlands and construction of farm ponds, diversions and other water control measures; and land treatment of non-farm lands, including seeding and mulching of cleared building sites, stabilization of banks and ditches, and better planning of subdivisions to fit topography; and finally, streambank and channel stabilization.

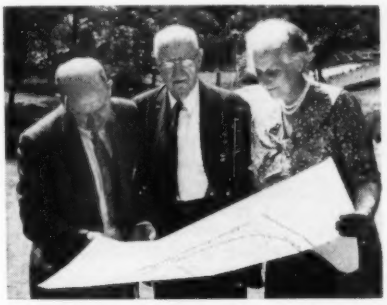
This plan was warmly applauded by delegates from all over the U.S.

In making a plea for planning programs to begin on the land itself, Mrs. Werner at the same time urged conservationists not to talk in too lofty terms and to come down to earth and join the common people.

"You've got to get together with these men who actually build and devlop areas, and you've got to think in terms of such things as sewage development programs as well as conservation programs," she said. "Also, you've got to recognize that all these things must be done within the framework of the existing tax rate, and that you can't do any of them unless you have the money."

All of these things begin with the land itself, Mrs. Werner stressed again. "And yet I find that the word 'zoning' is one that is feared, although planning and good zoning are prerequisites to all good land use."

Montgomery County banks sponsored chicken dinner for the water experts



Watershed map studied by Lathrop E. Smith, Hugh Bennett, Stella B. Werner

Keynoter at the Congress was Clifford R. Hope, former Kansas Congressman

Rock Creek rises on A. W. Hine's Spring Garden Farm 20 miles north of Washington. President Lathrop E. Smith, of Rock Creek Watershed Association, points out sights

Herschel D. Wade, watershed association president, and G. Manley Cury, West Fork SCD chairman, beamed when their Upper Tenmile Creek Watershed Project in West Virginia was named "Watershed Project of the Year"

L. L. Males, of Cheyenne, Oklahoma, receives "Watershed Man of the Year" award from Charles Butler, of Watershed Congress Awards Committee

At long last, the touring buses left the developments behind and moved into rolling Maryland countryside far up-county above Gaithersburg. This is the Maryland longtime residents know and love—the rambling farm homes, fenced-in pastures, green woodlots, a sprinkling of farm ponds, and crops starting a new cycle. As the buses moved into this new area, visitors from more wide-open spaces were seen to heave visible sighs of relief. But the question on everyone's lips was, "How long can it last?"

For a little while yet, at least, the rip tide of suburban development will not reach the lovely farm of A. W. Hine, who invited his guests to alight and inspect the crystal-pure, spring-fed farm pond, which is the fountainhead of the creek the buses had been following all day. Here was water the way the Good Lord made it—pure and undefiled. Downstream it may be a different story, but the presence at that spring of so many distinguished leaders—crusaders for planned land management—served at least as an indication that people may not always be simply content to follow the line of least resistance—that they will seek and demand something better.

"But what can *I* do?" one D.C. resident asked? Conservationists answer that there is plenty everyone can do. They can keep abreast of present-day conservation problems as reported in their daily newspapers. They can form watershed organizations or join existing ones. They can give their support to candidates for office who display an awareness of conservation needs. Finally, they can keep the gullies plugged and the green grass growing on their own little watersheds—the individual lots represented by the rooftops over their own homes. For all of these matters, conservationists declare, start at home — right in your own back yard. When a majority of property owners tire of mediocrity in reference to planning on the land, the other problems will start falling into line. Then the parks will be saved, the scalping of land brought under control, and the ruthless bludgeoning to death of trees halted.

As representatives of the Rock Creek Watershed Association readily conceded in talking to delegates from other states, "We are aware we face an extreme problem here in urban development. We can't stop it. Neither will you be able to when it reaches *your* county. But we contend there is a right way and a wrong way of doing these things. Not *all* the open areas have to go. Nor do we have to lose *all* our best topsoil as the transition goes on. While we can't imagine what people will be like 100 years from now, we can't believe they will be quite what they ought to be unless they know the trees, the water courses, and the bird and animal life that abounds even yet in this increasingly urbanized area. These things are necessary, just as new roads and new sewage systems are necessary. Unfortunately, trees and streams and birds and animals can't talk back. That's why some of us will have to do it for them."

The Sixth Watershed Congress found the roll call of up-and-coming new small watershed projects coming through loud and clear, presenting clear-cut evidence that more and more local leaders are beginning to talk the language of both the farmer and the city resident. Reports from six representative watershed programs were a congress highlight. These were: Walnut Creek, Concord, California; Cypress Creek, Morganfield, Kentucky; Pleasant Creek, Mt. Pleasant, Utah; Upper Tenmile Creek, Salem, West Virginia; Hightower Creek, Mountain City, Georgia; and Mule Creek, Emerson, Iowa.

Another indication of progress was the presentation by the congress of its first outstanding service award. Recipients of the "Watershed Project of the Year" award were the Upper Tenmile Creek Watershed Association and the West Fork Soil

Conservation District of West Virginia. According to Charles C. Butler, awards committee chairman, this watershed stood above all other projects considered for the "extent of interest and participation of individuals, organizations, and agencies within the watershed area, the adequacy of the project toward meeting all of the natural resources conservation and improvement needs of the watershed, and the present state of completion of the project."

For the first time, the congress also named a "Watershed Man of the Year." He is L. L. Males, of Cheyenne, Oklahoma, a bank president, and ardent leader of his local Soil Conservation District Board of Supervisors.

Keynoter at the "Sixth" was Clifford R. Hope, former member of Congress from Kansas, who, with Senator Aiken (Vermont), authored Public Law 566. Both men reiterated their previously-expressed convictions that the small watershed approach represents a relatively economical and feasible way to lick watershed problems at the local level.

The congress was further honored by the participation of Secretary of Agriculture Ezra Taft Benson and Interior Secretary Fred Seaton. A number of leaders of the Executive Branch and the Senate and House either participated actively or attended the congress.

With new small watershed projects now springing up like mushrooms on the land, the question was raised at this congress for the first time as to whether the present loosely-knit group of participating agencies should not be forged into an incorporated organization with more power to represent directly the interests of a new group in the nation, namely, people on the firing line on new watershed projects. One active California leader even suggested that the present annual "tour" be eliminated, that the meeting be held just before or at the same time as the annual Rivers and Harbors Convention, and that more time be given for contacting and working with legislators. Sentiment expressed for this view seemed to be that the movement has now reached the point where more than an annual meeting is required if the program is to go ahead with sufficient rapidity.

While the congress probably hasn't heard the last of this, there are others, including many of the present sponsoring groups, who are not in a position to support any lobbying type of organization, and who further believe that the young program would fall flat on its face if it attempted any such drastic change at this time.

(*Turn to page* 55)

Silt deposited in Rock Creek Park from up county is pointed out by Watershed President Smith to Dr. Hugh Bennett and County Council President Werner

Staving off new roads and saving parks requires a lot of time in Montgomery County. Recent instance found Cabin John residents fighting a road through creekbed of Cabin John Park shown below. Proposal, which had support of Maryland parks and roads people, was defeated

"Resources and People...

A CHALLENGE OF C

PROGRAM

SUNDAY, OCTOBER 11, 1959

9:00 A.M. AFA Board of Directors' Meeting
Golf Course Open to all Visitors

3:00 P.M. Tea Time

6:00 P.M. Buffet Supper

8:00 P.M. Movie: *White Wilderness* (Disney) or similar feature

MONDAY, OCTOBER 12, 1959

10:00 A.M. Call to Order
Introductions:
Fred E. Hornaday, Executive Vice President, AFA
President's Message
Don P. Johnston, President, AFA
Invocation and Presentation of Colors
Pageant

10:30 A.M. Welcome to Pennsylvania
The Honorable David L. Lawrence, Governor of Pennsylvania

11:00 A.M. Keynote Address
Dr. Eric A. Walker, President, Pennsylvania State University
Response
Lloyd E. Partain, President, Pennsylvania Forestry Association and Regional Vice President of The American Forestry Association

12:15 P.M. Luncheon
Conservation Awards—AFA
Good Outdoor Manners Awards—PFA

1:30 P.M. Field Tour
The Impacts of Civilization upon Forest Resources

6:00 P.M. Supper (Informal)

8:00 P.M. Trail Riders of the Wilderness in Kodacolor
Kenneth B. Pomeroy, Chief Forester, AFA

TUESDAY, OCTOBER 13, 1959

9:00 A.M. **Impacts Upon the Forest Resource**
Panel Moderator: *Dr. Delyte W. Morris, President, Southern Illinois University*

Industrial Pressures
G. B. Bonfield, Senior Vice President American Box Board Company

Social Pressures
Conrad L. Wirth, Director, National Park Service, U. S. Department of the Interior

Ecological Influences
Dr. Harold G. Wilm, Commissioner, New York State Conservation Department

12:00 Noon Luncheon (Informal)

2:00 P.M. **Meeting the Impacts**
Presiding: *Charles A. Connaughton, Director, AFA*

Panel Moderator: *Arthur W. Greeley, Assistant Chief, Forest Service, U. S. Department of Agriculture*

Responsibilities of Public Agencies
S. T. Dana, Dean Emeritus, School of Natural Resources, University of Michigan

Landowners' Responsibilities
Vertrees Young, Director, Crown-Zellerbach Corporation

Civilian Responsibilities
The Honorable Maurice K. Goddard, Secretary, Pennsylvania Department of Forests and Waters

7:00 P.M. Annual Banquet

Guest of Honor:
Laurance S. Rockefeller, Chairman, Outdoor Recreation Resources Review Commission

WEDNESDAY, OCTOBER 14, 1959

9:00 A.M. All-day field trip ending with visit to Shawnee State Park for ox roast followed by old-fashioned barn dance and hoe down.

THURSDAY, OCTOBER 15, AND FRIDAY, OCTOBER 16

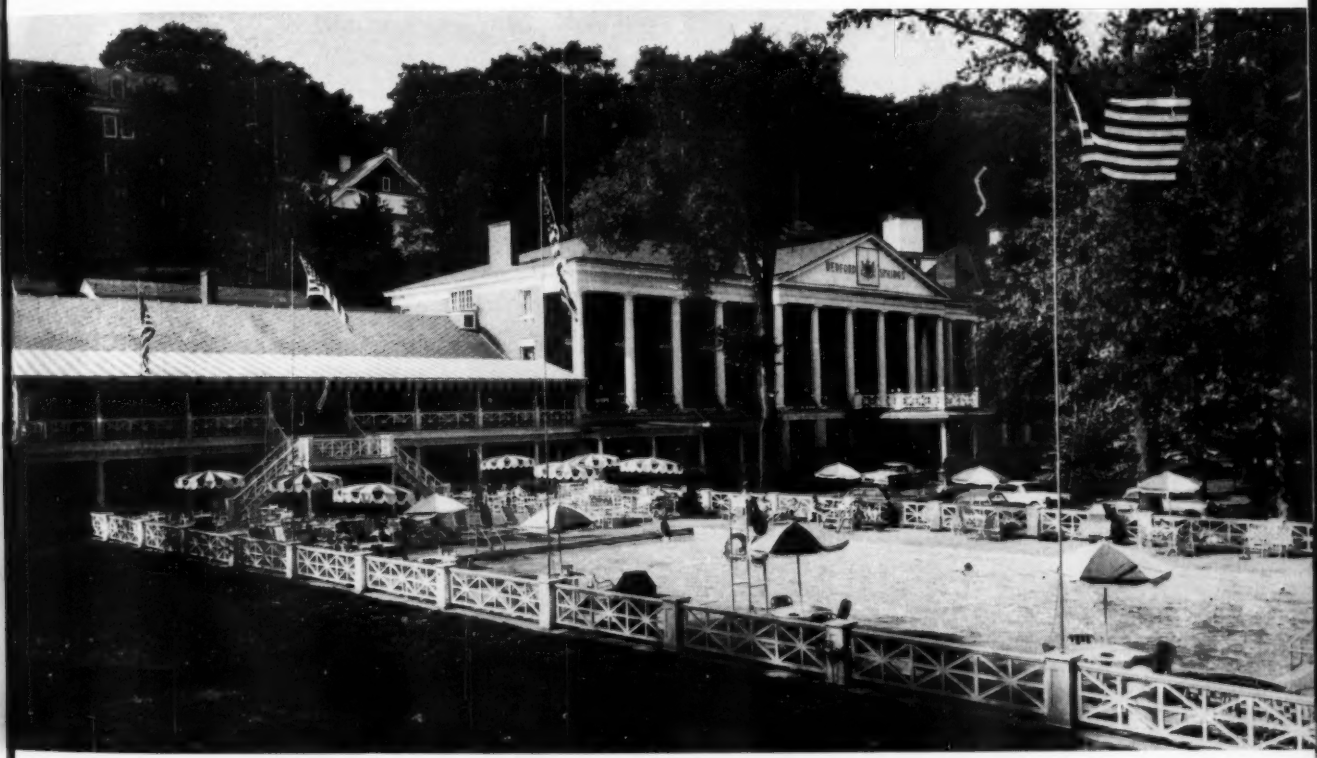
Post-Conference tours to Blackwater Falls State Park in West Virginia, the Grand Canyon, Pocono Mountains, Gettysburg and Fort Ligonier in Pennsylvania.

CO-EXISTENCE"

Joint Conference of The American Forestry Association and The Pennsylvania Forestry Association

Bedford Springs Hotel
Bedford, Pennsylvania

October 11-14, 1959



Bedford Springs Hotel will serve as headquarters for the joint conference of The American Forestry Association and The Pennsylvania Forestry Association

WITH Laurance Rockefeller as guest of honor, resources experts as panelists, informative field trips to point up discussions, a barn dance, an ox roast, and Howdy the Raccoon as the star attraction, the joint conference of The American Forestry Association and The Pennsylvania Forestry Association, to be held at the Bedford Springs Hotel, Bedford, Pennsylvania, October 11-14, is assured of being a fascinating meeting.

The occasion will mark the third time that AFA and PFA, two of the oldest active forestry organizations, have met jointly. The first meeting was in 1889 in Philadelphia, while the second was held in 1936 in Eagles Mere. The third will be in the shadow of Bedford's famous maples and oaks, some of which predate both associations. In honor of this long, close association, descendants of key men of both groups—Bernard Edward Fernow of AFA and Joseph Trimble Rothrock of PFA—will be honored guests at the annual banquet.

The significance of the conference's theme, "Resources and People —A Challenge of Co-existence," will be dramatically revealed during the field tours, and then thoroughly analyzed by panels of experts in the various fields of renewable natural resources.

The first field trip on Monday afternoon is designed to acquaint members with the subject and set the stage for the discussion on the following day. The tour will include a 40-minute bus ride to the Riddlesburg-Saxon area where the group will be joined by some of the local community leaders. This area graphically illustrates some of the unfortunate effects our advancing technology has had upon the inhabitants, as well as the manner in which man has abused his resources. The tour will represent an effort to get the real "low-down" on land conditions in one county-wide area.

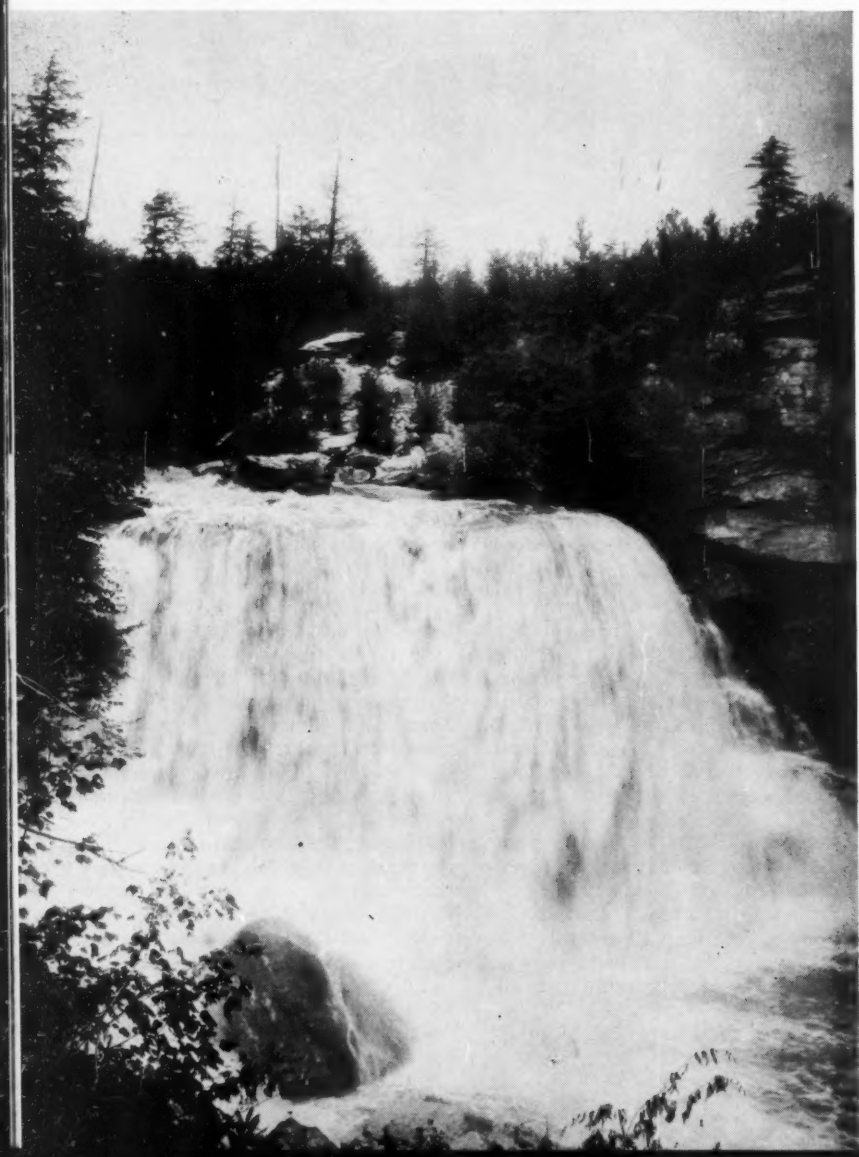
This mountainous, non-agricultural area began to yield its natural resources at least 150 years ago. Lum-

bering hit its peak somewhere between the 1860's and 1890's. After that the charcoal industry thrived for a time. Then coal became the dominant resource, and gradually it, too, has declined. Oil and diesel engines replaced steam. Today, an atomic reactor is beginning to provide a new form of energy. Meantime, the people supported by the former industries have lost their primary sources of livelihood.

Pulpwood is almost the only outlet for vast quantities of low-grade hardwoods in the area. We will see an old battery of coke ovens, now overgrown by young trees. There are abandoned coal mines, and remnants of a two-mile overhead conveyor system that antedated the use of trucks for coal transportation. A main-line railroad, now defunct. Empty stores. Polluted streams. It is not a pretty picture. Yet there are people in that valley, and they have to live. The forest is the only resource available to them. Unfortunately, it has been badly mistreated through high-grading and repeated fires.

With this first-hand knowledge of civilization's impact on our resources, members will have an excellent background for the panel discussions on Tuesday. The first panel, "Impacts Upon the Forest Resource," will consist of speeches on "Industrial Pressures" by G. B. Bonfield, senior vice president, American Box Board Company, "Social Pressures" by Conrad L. Wirth, director, National Park Service, and "Ecological Influences" by Dr. Harold G. Wilm, commissioner, New York State Conservation Department.

"Meeting the Impacts" will be the next topic under discussion. Subjects to be included in this afternoon session are "Responsibilities of Public Agencies" by Samuel T. Dana, dean emeritus, School of Natural Resources, University of Michigan, "Landowners' Responsibilities" by Vertrees Young, director, Crown-Zellerbach Corporation, and "Civilian Responsibilities" by The Honorable Maurice K. Goddard, secretary, Pennsylvania Department of Forests and Waters.



Blackwater Falls State Park, West Virginia, possesses many areas of spectacular scenic beauty. Two park tours will be available to conference guests

Another important impact on our forest resources, recreation, will be the topic of Laurance S. Rockefeller, as guest of honor at the annual banquet. Mr. Rockefeller, whose interest in conservation is recognized both in this country and abroad, was appointed chairman of the Outdoor Recreation Resources Review Commission by President Eisenhower last February. With recreational outlets reaching the critical stage, Mr. Rockefeller's speech should be most informative.

Next on the agenda will be the conference tour on Wednesday, which will present a more favorable picture than the first tour. On this all-day trip members will visit a well-managed tree farm, the most progressive sugar bush in the East, an SCS farm, apple orchards, a fish hatchery, and similar places of interest. The tour will arrive at Shawnee State Park about 4 p.m. Here the members will enjoy an ox

Autumn is the ideal season to tour the colorful Grand Canyon of Pennsylvania

roast, Pennsylvania style, and a lively barn dance.

Other highlights of the joint conference will include a pageant featuring Howdy the Raccoon, the PFA symbol for good outdoor manners, and a luncheon where the AFA Distinguished Service Awards will be presented, as well as the award to the winner of the PFA "Name the Raccoon" contest.

For those who have the time to linger awhile, several post-conference tours through the colorful Pennsylvania countryside and to various historical monuments have been arranged by PFA:

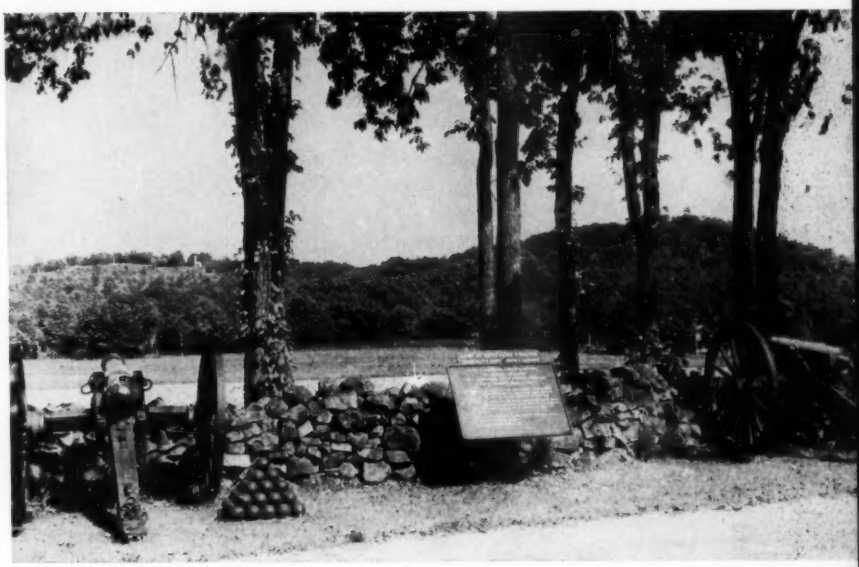
Blackwater Falls—F. Henry Sipe, tour leader. This trip actually consists of two tours, leaving the hotel together at 9 a.m. on October 15. The groups will cross the state of Maryland and pass through some spectacularly scenic areas of the Allegheny Mountains of West Virginia. The buses will travel south on U. S. Route 220. Lunch at Blackwater Lodge in Blackwater Falls State Park, W. Va., will be arranged by the tour leader. At Blackwater Falls State Park the group will see the famous Blackwater Falls and Canyon and the town of Davis, once a ghost town but now recovering through reforestation projects, wildlife restoration, and development of winter sports. After visiting Canaan Valley, buses on the first tour will drive back to Bedford, arriving about 5:30 p.m. Estimated cost of tour is $10.00.

Those wishing to take the second tour will remain at Blackwater Lodge overnight, with meals and lodging arranged by the tour leader. The following day the group will visit the state forest nursery, Cheat Ranger District on the Monongahela National Forest, Western Maryland Railroad plantations, charcoal cuttings, strip mines, Fernow Experimental Forest, and many other interesting places, before returning to Bedford that afternoon. Estimated cost of the tour is $25.00, including overnight stay at hotel.

Grand Canyon Scenic Tour—George German, tour leader. Following the adjournment of the meeting, people interested in this trip will proceed via U. S. Route 220 to the Pennsylvania Fish Commission Research Station at Benner Springs, a distance of 94 miles. On Thursday at 2:00 p.m., a Fish Commission specialist will conduct a tour of the Research Station, Trout Hatchery, and Fisherman's Paradise. The next day the group will meet at 8:30 a.m. at the Court House in Bellefonte, and then proceed to Lock Haven where they will have a conducted tour of a pulp and paper mill. After lunch a 10-mile drive will take the group to the entrance of Pine Creek Gorge. Then a scenic tour, featuring the fall leaf coloration through 37 miles of the Pine Creek Gorge country, will end at the entrance of West Rim State Forest Road. The tour continues along the west rim of the Grand Canyon, following the West Rim and Leetonia Roads through Tioga State Forest to Colton Point State Park. The group will then proceed to Wellsboro where the tour will end.

Pocono Mountains Colorama—E. F. McNamara, tour leader. Group will rendezvous on route 940 at Pocono Interchange of the northeastern extension of the Pennsylvania Turnpike on Friday, October 16, at 10:00 a.m. The tour will visit Hickory Run State Park, where members will see a youth forestry camp for rehabilitating juvenile delinquents, and Boulder Field. The next stop will be the Delaware Lehigh Experimental Forest, a co-operative venture in watershed management research between the state and federal governments. Proceeding to Big Pocono State Park, the group will enjoy views unparalleled in eastern Pennsylvania. An excellent view of fall coloration may be seen from the mountain, which is approximately 1000 feet higher than the surrounding terrain. The tour will disband on Route 611 at Tannersville, Pennsylvania.

Special tour of Gettysburg National Military Park has been arranged. On the battlefields some 400 guns indicate positions of artillery during the battle



Gettysburg—A. Miles, tour leader. Group will leave Bedford Springs at 8:30 a.m. on October 15. They will view farms and various soil and water conservation practices enroute through central Pennsylvania during the colorful autumn season. Arriving at Gettysburg at 2:00 p.m., they will

(*Turn to page* 55)

Wood Industries and Labor

(*From page* 29)

tainly much of the credit for this happy state of affairs goes to The American Forestry Association and AMERICAN FORESTS magazine.

"The greatest failure probably lies in the vast number of small woodlots that still are mismanaged or neglected entirely. TRR (Timber Resource Review) emphasizes the need for improving these small plots if the nation is to meet its future timber obligations. Yet despite the great deal of attention that has been focused on this area of conservation, only a relatively small number of woodlot owners have responded."

Ernest L. Kolbe, Western Pine Association—"On the credit side, I am sure you will want to give top billing to the forward strides in private forestry. We all recognize that the economics of the times have made private forestry this dynamic. Forest product economics is even making small ownership forestry more profitable and feasible. Certainly this trend promises that more and more owners will be practicing the type of forestry that can pay its way and so endure. Now, more than ever, forestry advice and practice must be guided by the basic economic principle: it must pay. Certainly we have reached a point in our forest economy where progress is likely to be rapid, especially if our programs are well-planned and based on sound determinations."

Gus P. Backman, secretary, Salt Lake City Chamber of Commerce, and chairman, Forest Research Advisory Committee—". . . The greatest progress since the adoption of the program is to me the most important part of the forest program at the present time, to wit: research. Through the efforts of The American Forestry Association and other great agencies, Congress has become appreciative of the tremendous value of research in specific fields and also of the need for basic research in the field of forestry, which to a great extent has been ignored for many years. I am sure that I can express on behalf of the Forest Research Advisory Committee our appreciation of the fine support which has been given by the association in the development of research."

Howard A. Post, Natural Resources Department, Chamber of Commerce of the United States—"1) Forest Protection. Much has been accomplished, but substantial improvement is needed in order to achieve the goal. More protection responsibility must be shifted to the local and state levels. Prevention activities, especially Keep Green and Smokey Bear programs, have achieved outstanding accomplishments but will require constant attention and further expansion in the future.

"Insect and disease protection activities, including research, have been excellent. The problem is of great extent, and there is much more to do. With the current programs, and the interest being taken by state agencies and legislatures, the future looks encouraging, but there must be a continuing program by all agencies to educate the public and to formulate action plans. Basic research, of course, must be continued.

"2) Timber Resources. Tremendous strides have been made, especially by private owners, to build up forest productivity. Federal and state agencies are beginning to catch up, and if long range plans for the national forests take place, they will begin to assume the place in the production picture which they should occupy.

"3) Economic and Social Services from the Forests. The multiple use of all resources involved in forest lands has been effectively promoted in recent years on all ownerships, but there is room for steady improvement. The constant attempt by wilderness, wildlife and park proponents to increase greatly the areas restricted to single uses must be closely watched and contained."

Frank Heyward, Jr., Gaylord Container Corporation, Bogalusa, La.—"At the top of any list of forestry achievements in the South during the past five years should be the dramatic increase in planting. Encouraged by the Soil Bank, total nursery production was estimated to be nearly *one and three-quarters billion* seedlings in the past planting season.

"Another bright spot has been a continued reduction in total forest area burned.

"Progress in establishment of tree farms has likewise been substantial and encouraging. Of a national total of more than 48 million acres of tree farms, 32 million acres are in the South.

"Sparkplugging the South's splendid progress in forestry has been the paper industry. As a group, its fee lands, widespread throughout the region from Virginia to Texas, provide the most outstanding example of applied forest management to be found in the nation. Its conservation program has meant scientific pulpwood thinning on thousands of non-company-owned properties in the past five years. Its network of school forests, pilot forests, and other demonstration projects has provided guidance in the field to countless landowners.

"It is an interesting paradox, therefore, that the paper industry, which has so profoundly benefited southern forestry, should be subject to criticism for failing to fulfill its potentiality of leadership. Lead the parade it has, but full praise for this accomplishment must be tempered, because this leadership has been more fortuitous than planned. The most significant effect of the industry was creation of a market for small-sized wood previously having little or no sale value. Literally, a pulpwood market has made tree farming possible. But the establishment of a pulpwood market was incidental to the expansion of the industry, and not a factor influencing it. Furthermore, the paper industry is so huge and the scale of forestry measures in the South so vast that fractional accomplishment in a specific activity may yield a figure of somewhat deceptive value. For instance, in 1958 member mills of the Southern Pulpwood Conservation Association rendered free tree-marking service prior to pulpwood thining on some 13,000 non-company-owned properties aggregating 637,000 acres. This is a splendid achievement by any criterion, but its glamour is less lustrous when it is realized that the area probably represents not more than one-sixth of the total forest acreage from which pulpwood was cut, exclusive of company-owned lands.

"The paper industry is capable of exerting a far greater influence on southern forestry than it has in the past. In potential it exceeds that of all wood-using industries and all governmental agencies in the field of forestry combined. When this potential is fully appreciated by the

paper industry and when its top management orders 'full steam ahead,' the South will experience forestry progress dwarfing by comparison anything in its history."

L. J. Kugelman, International Paper Co., New York City—"We believe real progress has been made in protection techniques in general and in public understanding of the fire problem. Insect and disease problems are not as well understood by the public.

"The first step in the second goal of the AFA program has been accomplished; that is, an inventory. The job of improving quality and quantity of usable wood depends on the application of forestry techniques well known to the forester. We believe we know how to do the job silviculturally; the trick is to do the job within the framework of current economics. Progress toward the second goal has been steady. We have no doubt that this goal will be accomplished.

"Regarding goal three: In my opinion we have failed to get the multiple use concept across to the public. Perhaps it smacks of promising all things to all people, and this is suspect of being a false promise. Nevertheless the greatest current threat to forest management, and particularly private forest management, is the inroad of government ownership for single use purposes, whether it is wilderness, the demands of national defense, or the growth of cities and roads. Although The American Forestry Association has certainly been active, forest owners do not appear to have gotten the multiple use concept—as practiced today—across to the public generally."

Earl Porter, Southern Kraft Division, International Paper Co.—"I will list the areas of greatest progress in conservation in the South in order, from greatest to least—all developments, of course, which have been effected by economics: 1) forest management; 2) multiple use policies; 3) education and assistance to forest owners; 4) forest research and surveys; and 5) forest land ownership.

"The intensification in these areas during the past five years has been mostly a snowballing of activities in progress. Under forest management, it has been possible, and necessary, to intensify the markets. The forest fire convention in New Orleans resulted in an intensification and understanding of the forest fire problem in the South.

"Multiple use policies in the South have been intensified strongly in the field of wildlife management, especially on private lands, which furnish the greatest amount of game. The drought and increasing industrialization have brought to the forefront the water and watershed needs.

"Education and assistance to forest landowners in the South has been a continuing, intensifying item, spearheaded by the activities of the Southern Pulpwood Conservation Association. Contrary to your editorial suggesting federal assistance in this line, which was resented by many Southerners, the greatest progress is going to be made by private initiative of individual citizens to meet the economics of their area. Federal assistance is a slow, unproductive, paternalistic system and has no particular value in a progressive forest area. As brought out by the small landowner conferences, markets are the controlling incentive for education and assistance to forest owners, and economics controls these markets.

"Forest research of a fundamental nature is continuing in the hands of the schools and federal government, and these findings are being applied as fast as economics allows. The Forest Survey is of a national character and crosses state lines by forest regions to such an extent that the federal government alone can satisfactorily coordinate and develop this survey. With the increasing returns from forest lands, the survey should be handled by the federal budget and not as an imposition on local industries, which are paying heavy taxes to the federal government.

"The forest land ownership feature of the program is of less importance, because economics and local conditions govern the ownership pattern. Any study of land ownership should be considered only by the individual state having problems. As long as we maintain a healthy economy, there is no need for any consideration of redistribution of lands which, if and when it might occur, would be by revolt and not by prior legislation.

"Any progress to be made in your program of forestry will be made by the improvement of economic conditions and will not be forced by subsidies, legislation, or unsound reactions. There has been, in the South at least, progress in all of the fields of your program, and I do not see that you can put a finger on anything as a failure, unless it would be some of the tendencies of Congress to weaken the economics of progress by extending social legislation — increasing the benefits of social security, unemployment, and like encouragement to unproductiveness. These items cannot be tied to forest conservation, but can be interpreted as contrary to individual incentive, pride of ownership, and self-sufficiency, which have built this country in the past."

The American Public

(*From page* 28)

Agriculture is marching forward, finally, on a comprehensive national forest program, the fact remains that it has been dragging its feet on small woodlands almost since the inception of forestry in this country. At one time, there was talk of having the department 'regulate' all forestry in the nation, when it was experiencing difficulty in even 'regulating' the various agencies under its own control. I have written more than one editorial on this subject in the past, and I am led to believe the same situation still prevails. I am also inclined to believe that forestry is getting too far removed from the woodlot owner on the land and is moving too much into the field of science. The idea that a technical forester or scientist is the sole functionary properly equipped to tell a small landowner what to do strikes me as somewhat absurd. I would rather have had men such as Jim Girard tell me what to do with my woodlands than I would many technically-trained foresters, for Girard is first of all a man of practical sense. I am aware that some foresters do not concur with my view."

Arthur Ringland, AFA member—"Failure of the woodland owner's pocketbook nerve to throb sufficiently is the primary obstacle to good management of small woodlands. To stimulate it properly, he seeks financial incentives such as markets and tax reforms. Since many small owners are unable to undertake har-

vestings logs themselves, they would benefit from some type of co-operative. I hope AFA fully explores these possibilities. And, not to be overlooked are the services to be provided by the Soil Conservation Districts."

State Foresters

George O. White, state forester, Missouri — "In my opinion, great progress has been made by industry, the federal government, and the states in forestry in the last five years. However, much remains to be done, and many of the recommendations in the program are as sound today as when first made at Higgins Lake.

"I think the most notable failure in the protection of forests against forest fires is in the lack of federal financial support to the states for the co-operative fire control program. Although the states have made wonderful progress in the last 10 years in advancing their programs for fire control, there has been no increase in the federal co-operative funds for this purpose. This means that during that period, some of the states have received fewer funds from the federal government than they were formerly receiving. The American Forestry Association is partly responsible for this situation, for not once has it effectively raised its voice in support of increased co-operative federal funds for fire fighting on private forest land. There are still millions of acres of forest land in the United States with no organized fire protection. Many of the state programs are too inadequately financed to assure reasonably good fire protection. The protection of these small forest areas from fire is basic to the improvement of these lands. Many studies have been made in this field. In particular, the Battelle Report indicates that the federal government is not contributing its proper portion to the states. In my judgment, AFA should look into this whole problem and do so without delay."

Maurice K. Goddard, secretary, Department of Forests and Waters, Pennsylvania—"One of the prime objectives is protecting forest lands from fire. We all know that without such protection it is impossible to get maximum returns from the land. Although progress has been made in this area, I feel that greater emphasis is needed to accomplish our objectives. AFA should eternally hammer away at this problem until it is licked for good. Additional progress is also necessary to combat insect and disease outbreaks adequately and satisfactorily while they are in the incipient stage, before they reach epidemic proportions. This requires constant surveillance as well as control activity.

"While some progress has been made in reforesting 50 million acres of idle land which is judged to be best suited for timber, the major portion of these lands still remain unplanted. Since many of the areas are in private ownership and since the growing of timber crops involves a long-term investment, many of the landowners cannot be convinced to, or cannot afford to, reforest idle lands. It is apparent that some financial or co-operative incentive will be necessary to bring these lands into production so that they can contribute to our economy.

"Forest practices on industrial and government holdings have improved greatly and are perhaps approaching an acceptable level; however, there are approximately 4.5 million small private ownerships (accounting for 60 per cent of the total forest lands) which are not even approaching their potential outputs due to poor management practices and inadequate stocking. To solve this problem, an expanded educational effort is needed, as well as an increased technical assistance program.

"Incidentally, the nationwide meetings held last year under the supervision of the Forest Service brought together many people who had ideas about the problem of management of small woodlands. The summarized material from these meetings should prove very helpful in solving future problems in this complex field. . .

"To summarize our present situation in the United States, I would say that we have made definite progress, but our goals are still far ahead and reaching them is complicated by the desires and needs of an exploding population. This makes our present and future problems complex indeed."

Extension Forestry

Charles R. Ross, farm forestry specialist, Extension Service, Corvallis, Oregon—

"One of the more notable gains, as I see it, is the rapid nationwide expansion of artificial reforestation. It has touched every region and almost every county. It involves research, expansion of nurseries, mechanical developments, and all the rest. Large-scale employment of artificial reforestation to save time in regeneration, to get full stands, and to obtain improved stock are features that go with a high level of forestry. They are real encouragements to all of us. Poor stocking and idle lands are tremendous conservation problems in America.

"It is hard to say when a gain becomes notable, but certainly the greatly enlarged use of mill residues and low-grade wood material must be noted as a real gain. It is particularly heartening in the Northwest where so much wood had heretofore not been utilized after reaching the mill.

"In the area of public attitudes and policy some of us see notable gains. During the last five years, little has been heard in the way of alarm-crying or of one group blaming another. Generally, it seems to me co-operative efforts to solve real problems have prevailed. General concern, and an honest concern, over such problems as water, recreation, and protection from diseases and insects have occupied the major groups.

"Increasing attention is being paid to forest weed control, forest tree improvement, and adaptation of tree races to forest soils and sites.

"We have failures too, although they are not of the last five years only. It seems to me we still do not have a realistic approach to the small woodland problem. More attention has been given to the condition of the small woodland itself than to the condition of its owner. The TRR (Timber Resource Review) tells us, if our own eyes had not told us, that the great majority of small woodlands are in the stage of young growth, or lack of satisfactory growth, and to improve them calls for outlays of time and money as well as skills. If the owner does not have the money, or if the investment will not pay him as an individual, the situation should be recognized. If improving the small woodland is largely a question of *money*, where is the money to come from? We all know the small woodland problem is many-sided; however, the aspect I have mentioned is not sufficiently recognized."

Forestry Consultants

E. L. Demmon, Asheville, N.C.—"I believe that at least some progress has been made in every aspect of AFA's recommended program. This is probably normal in a field of endeavor with as many ramifications as forestry. Therefore, while gains

have been made, the major shortcoming might be the relative slowness with which progress has taken place. This can be ascribed largely to human nature and the difficulties of attaining desirable objectives rapidly under our form of democracy. Although this may be all to the good in the long run, it is disappointingly slow to many of us. For example, we have but scratched the surface in educating the millions of small woodland owners to good forest conservation practices. Yet these people are the key to this program. If there is one place where efforts might be concentrated, this is it. The entire AFA program is important, but I believe maximum progress in U.S. forestry will come by inducing the small woodland owner to do those things which obviously should be done."

State Forestry Associations

Ed Kerr, assistant executive director, The Louisiana Forestry Association —"Gains have been great since initiation of AFA's Program for Forestry. Certainly the Southern Forest Fire Prevention Conference will go down in history as a highlight in this progress from the standpoint of the South. The conference itself, and district and state conferences that have followed it, have made a definite impression upon the fire occurrence records and have increased the appreciation by public officials of our enforcement problems. You know that the initiation of the Southern FFPC is a direct result of the conference, and this may well be the cornerstone upon which victory over forest fires in the South will be based.

"Other areas of notable gain seem to be in research and reforestation. Except for fire reduction, the key to further strides in reforestation will be research and, judging by recent Senate and House hearings in Washington, federal legislators seem to have a greater understanding and grasp of forestry research needs than ever before.

"With all of the gains that have been made during the past five years, one cannot really talk of failures—only, perhaps, of those things AFA and others haven't gotten around to yet. Let's talk of those.

"First, probably everyone realizes that we must grow stronger and stronger in legislation, both national and state, and that not all of it can be achieved on the national level. Whether we speak of lawmakers in Washington or State City, we know they are all influenced by reaction back at their home town in Podunk. The way to influence legislation here is through the state associations, but there are not enough strong state associations. One of the greatest contributions that AFA could make would be to devise a method of encouraging such associations to function, and to provide a national hook-up. How this could be done I haven't the slightest idea, but the need is there.

"The other problems I had in mind are with us because of the lack of leadership within most of the states. They are: proper forest management on the part of small landowners, investment in forestry on the part of many large landowners, and the dangerous usurpation of forestlands for other uses. All these problems can be solved only by state associations who are ever on the alert."

John F. Shanklin, forester, Technical Review Staff, United States Department of the Interior—"Any attempt to put into a few words a summary reply to the question, "What are our most notable gains and what are our most notable failures in forest conservation since adoption of AFA's Program for Forestry?" would most likely involve us in the common error of a generalization which may be inaccurate in some specific respects. However, I shall have to take that chance.

"In my opinion, the most notable gains have been made in the management of the commercial, federal and industrial forest lands, where considerable progress is a matter of public record. On the other hand, the management of the smaller forest holdings such as farmers' woodlots may be characterized as generally very poor. I would say that our greatest failure on the national level is in the latter field.

"Speaking more specifically of the responsibilities of this department alone, I think it may be said that notable progress has been made. The management of the commercial forest lands entrusted to this department has been improved considerably in the past five years. We are moving steadily forward to our goal of intensive management for all commercial forest lands. Improvement in forest protection, forest inventory, and forest management planning has progressed steadily during this period. Access to most of our commercial forest lands has been guaranteed, either through road construction, pending road construction, or agreements with adjacent forest land owners. The full allowable cut from these lands has been advertised, harvested and sold for the past several years. In the associated multiple-use management fields such as the proper conservation of water, recreation, grazing, mining, and wildlife management, the department has made considerable progress.

"Although it cannot be said that our commercial forest lands are under intensive management as yet, much progress has been made toward that goal—a goal, incidentally, which is somewhat beyond the program set forth in the Higgins Lake report of your association."

The Academic Viewpoint

(*From page* 29)

standards. We already have too many low-standard schools."

H. H. Chapman, professor emeritus, Yale—"Most notable gains lie: 1) in the field of private industrial forestry; 2) in addition of sound silvicultural practices for protection against fires in the South, involving use of prescribed fire as a necessity in reproducing fireproof species; 3) in insisting on multiple use forestry in opposition to the Wilderness Bill, which seeks to segregate these areas for single purpose use."

Hardy L. Shirley, dean, College of Forestry, State University of New York—"It seems to me that one of our serious lags in forestry is in defining precisely and concretely the small forest ownership problem and what we might expect of it. The more I look into this problem myself, the more I appreciate that there are basic economic handicaps to the small timberland owner that place him almost completely at the mercy of timber buyers and their timber cutters. Some of these problems simply have to do with size of operation and with the records that such individuals must keep—compensation insurance, unemployment insurance, and other liability insurance are but a few of the hazards he faces in try-

ing to get a good forestry job done on his property. Aside from that, there is the question of how much public money we can funnel into trying to do a job for the small woodland owner that he is not in a position to do for himself.

"Turning to the other side, I believe one of our greatest advances in the profession in the last five years has been the growth of interest, research, and instruction in genetics and forest tree improvement. We are on the verge of substantial advances in recreational use of forest land and also of more intensive concern over water resources. But these last two can be goals for the next five years."

R. J. Preston, dean, School of Forestry, North Carolina State College—"In my opinion, the most notable gains in forest conservation in recent years have been in the development of private forestry. I believe the federal government has publicly stated that many private forest holdings are now under better management than the national forests, and the recent surveys indicate that growth on all of our forests is exceeding drain.

"Another notable achievement has been healing of the breach which developed between public and private foresters during the New Deal, and the consequent pulling together of all forestry interests in most major areas.

"A further achievement would be the evidence that our profession is coming of age as a scientific profession, as revealed by the constantly improving quality of forestry research and forestry education. There are, of course, many other important areas of achievement, but these seem to me to be among the most important."

The Forests of Spain

(*From page 33*)

sheep, cattle, horses, and the martial spirit acquired in the Moorish wars, Spaniards conquered most of the Americas.

But even after Spain had acquired a colonial empire, she did not become a manufacturing and trading country. The influx of gold and silver made competition with England and Flanders seem unnecessary. Spain continued to export wool and colonists. Agriculture languished while flocks of sheep nibbled away at the forests and pounded the soil to dust.

To what extent over-grazing is responsible for the barren and often desolate aspect of so much of Spain is an interesting though perhaps moot point. During the long slumber of the 17th and 18th centuries, population fell and large areas must have reverted to semi-wilderness. To some extent the forest must have recovered.

The outlines of Spanish forest policy appeared during the last century, soon after the Napoleonic Wars. Then the population and the level of economic activity were rising. National policy demanded the export of wheat. Every acre under plow seemed an acre of wealth, and every acre untouched, a loss. To encourage cultivation, the government expropriated huge blocks of feudal and ecclesiastical land and, following the liberal theories of the day, sold them to the highest bidders at auction. The new owners were not conservationists. Wheat was what they wanted —wheat, wool, and wood. The forests melted away before their onslaught. As in the eastern United States, a spate of extensive and often unwise land-clearing made a lasting mark on the forest cover.

For one thing, two-thirds of the land officially classified as forest (about 51 per cent of the national area) is really run-down farmland and range, much of it covered with coppice and still more with brush and weeds. Seventy-one per cent of the forest is in private hands. Municipalities own practically all the remainder.

In Spain, as in so many other countries, the beginnings of forestry correspond with the high tide of forest destruction. During the 1840's, an astute and farsighted man named Bernardo de la Torre y Rojas began to agitate for a School of Forestry and Corps of Forestry Engineers. He was a one-armed veteran of the Colonial Wars who had achieved some eminence as a lawyer and civil servant. With his tenacity and good connections, he won on both counts, and in 1863 he saw enacted the basic forest law of Spain. This law exempted blocks of public forest land over 250 acres in size from sale at auction; it declared such lands to be the property of the municipalities within whose boundaries they fell; and it designated the Corps of Forest Engineers to administer these lands. Ninety per cent of the revenues were for the owners, and ten for the improvement of the forest.

Spanish forest policy has since remained essentially the same. The school operates to staff one public agency, which identifies, protects, and manages community lands. The fact that many of these lands contain few or no trees does not influence their administrative status. They are all called "montes," and every use comes in for a share of attention. The foresters in charge are land administrators as well as silviculturists.

Because of the ownership pattern, the local point of view must come first. Traditionally, the Spanish peasant looks to these community lands for forage, fuel, and building material for his own use. If he needs a few acres of plowland, he expects to obtain them from the community pool. He is willing to see the hunting rights leased out while he spends his leisure in the village tavern. Such modern industrial uses of wood as mine props, railway ties or pulpwood are of limited concern to him. True, as a member of the village he shares, sometimes directly, in the profits from community lands. But his point of view changes slowly and is likely to hinder efforts to intensify forestry.

Under such conditions, management varies widely. Some lands produce little revenue and are difficult to improve. The owners may well expect no more than brush and coppice. Other villages may own several square miles of first-rate forest. Venuesa, in the province of Soria, is one example. Here, mere membership in the village is equivalent to an income of $800 a year. Such forests reach very high levels of management.

The ebb of agricultural expansion has brought with it problems with which Americans are all too familiar. Many of the lands cleared of forest were not suitable for even temporary tillage. Top soils soon washed away; yields became low; and the countryman went elsewhere with his axe, plow, and stock. If the forest had reappeared—the pine, spruce, birch, and poplar that we see in the United States—such temporary deforestation would have been more tolerable. But the native oaks are heavy-seeded and slow-growing. In Spain, as in England, the oaks yield to heather, gorse, and other low-grade vegetation.

Today the area of abandoned land is probably still increasing. The

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SEE PAGES 44 & 45 FOR PROGRAM.

reason lies no longer with shifting cultivation, but with the trend for farmers to turn their efforts upon the better lands, or else to give up farming and seek industrial employment.

As in other countries, the highlander, the small subsistence farmer living in his tiny village or isolated homestead, is losing ground. He wants the open range and the freedom to cut and plow where he pleases. Many Spanish hill towns, especially in the Pyrenees, have but a fraction of the people and livestock they had a century ago. Imperceptibly the point of view changes. Commercial farming comes to the fore. It needs water from the hills, and steady foreign markets to pay for machinery and fertilizers. Cities come to dominate the national life, and they need light, power, and potable water, all of which, in Spain, come from the hills.

About the turn of the century, the Spaniards set up forestry brigades in the most critical watershed areas. Economic and political difficulties hampered their work, but the brigades reforested enough land to prove their value. South of Murcia, for example, among the parched and barren hills, a 25,000-acre forest of pine presents a thrilling sight. It is entirely man-made; and far from being an isolated case, it is one of many so laboriously built up in the face of incredible difficulties.

Such examples are the inspiration for the reforestation now under way. It began in earnest twenty years ago in the hands of a new agency, the National Forest Estate. This agency owns very little land, but makes contracts with communities and individuals for planting trees. With a clear purpose and a budget supported, since 1956, by American aid, it has been very successful. Every year Spain acquires over 300,000 acres of new forest. The total is now approaching three million acres.

The National Forest Estate reforests principally former agricultural and grazing lands too poor to be of interest to the local inhabitants. It must often work on rocky, infertile soils which brush and erosion render even worse. Clearing, terracing, plowing, and planting are costly and laborious. But the work goes on because new forests are the only answer to the problems which their loss has created.

The new forests that are replacing the native ones are mainly of pine. These trees grow faster than the oaks and are generally more useful to an industrial nation. Also, they survive the drought, the glaring sun, and the almost constant winds. The Aleppo pine is limby and unkept in appearance, but highly useful. The picturesque, umbrella-like stone pine is useful too, as is the laricio pine, whose trunks hold up most of the telephone lines in Spain. Further north, in the cool mountain lands, they plant Scotch pine for the smooth white wood, and on the plains, pinaster pine for the naval stores and lumber.

Although watershed control was the original and principal motive for reforestation, other values have since come to the fore. Spain, responding to the rising needs of her people, must import quantities of forest products. Gradually the yield of her own lands is rising and giving hope that eventually she will balance her timber trade and even export some wood.

Reforestation is a means of alleviating the strains of a changing economy as they affect rural areas. It can relieve the winter idleness, which has long been a problem in Mediterranean countries, and can rebuild the huge stretches of unproductive, semi-desert land that have been such a drag upon the country.

The fact that Spain generally gives the impression of being barren and treeless tends to obscure the fact that she does possess within her boundaries areas of excellent and high-yielding forest, both natural and planted. The pinaster pine of Galicia, for example, grows a thousand board feet to the acre each year; and the rotation for sawlogs is complete in forty years. Here, in the northwest corner of Spain, the ocean climate of fog, drizzle, and mild temperatures resembles that of our Pacific Northwest. Groves of pine alternate with small fields of corn and clover. The present rush of private owners to plant trees reflects both the soaring demand for wood and an agriculture of minute farms, oxcarts, and hand sickles.

Further east along the Cantabrian coast are whole forests of eucalyptus and of our own Monterey pine from California, and stands of Port Orford cedar growing at the rate of 2,500 board feet to the acre a year. Here forestry is a highly profitable enterprise.

Eastward, in the Pyrenees, the hand-tended exotics give way to the native species. Oak, beech, and pine mingle together. In the central part of the Pyrenees and beyond are stands of fir and black pine. Chestnut groves cover the eastern province of Gerona, except for a pine belt close to the sea.

Nor are the central plains without valuable and extensive forests. Spain is the world's third producer of naval stores. Her supply comes from pinaster pine, which is as typical of Castile as are the old walled towns, the wheat fields, and the castles themselves.

Rising above this landscape are mountain ranges that receive more rainfall and that often are heavily forested. The Guadarrama Range near Madrid, for example, has fine forests of Scotch pine, some of them royal hunting preserves that have been under protection for centuries. Others are the range between Teruel and Cuenca, and the Sierra de la Demanda near Soria. Andalucia has the huge Sierra de Cazorla, a wild, mountainous section of breathtaking scenery and ancient stands of laricio pine. The Sierra de Ronda has a curious remnant of bygone times in the pinsapo fir. The southwestern province of Estremadura has immense stretches of cork and holm oak. The hot and sterile sand dunes of Huelva are growing a 70,000-acre man-made forest of eucalyptus.

Spanish rivers have a way of flooding and drying as snows melt in the mountains or as torrential rainstorms pour down their channels. Their meanderings create flood plains and sand bars. Here are ideal sites for poplars. These trees already cover half a million acres and are being extended rapidly.

Descriptions of Spain have often mentioned the aridity, but seldom

INTEREST KEEN FOR VERMONT TRAIL RIDE

An inquiry in *American Forests* regarding AFA interest in scheduling a Vermont trail ride brought responses from the states of Washington, Illinois, Michigan, New Jersey, Pennsylvania, Massachusetts and New York, Chief Forester Kenneth B. Pomeroy reports.

As a result of this interest, plans are now being made to incorporate a Vermont ride into the 1960 Trail Rider schedule, but there is not sufficient time to organize and equip a trip this coming September, Mr. Pomeroy said.

Meanwhile, members who would like to ride in New England this fall "on their own" are invited to contact the Green Mountain Horse Association, Inc., South Woodstock, Vermont; the Arrow "S" Ranch, Box 747, Hanover, New Hampshire; and H. Howard Stewart, P. O. Box 591, Clearfield, Pennsylvania.

the forests. True, they are mostly off the beaten track and overshadowed by other resources and sights of this broad and fascinating land. But they are as varied and productive a group as can be found in Europe and are far more extensive than is generally supposed. Furthermore, they are increasing at a rate that puts Spain among the foremost in this endeavor.

Annual Meeting

(*From page* 47)

have a conducted tour of the battlefield.

Historic Tour—Stanley A. Walton, tour leader. Leaving Bedford Springs at 8:00 a.m., the tour will visit Fort Ligonier. The fort built in 1758 by General John Forbes, has been partially restored by he Fort Ligonier Memorial Foundation.

Watershed Congress

(*From page* 43)

To many, President Bill Richards, of the National Association of Soil Conservation Districts, summed it up pretty well in his *Tuesday Letter* when he wrote, "In some respects, the small watershed program in the United States is like a promising, confident baseball rookie just beginning to play in the big leagues. He's got a lot of natural ability and power, but still stumbles over his own feet once in a while. Still, it's clear he's on his way to being a star."

Yes, there's been some stumbling, but it has been the right kind of stumbling. And as Mr. Richards indicates, you don't make a star overnight.

Senator Aiken

(*From page* 4)

Compact now involves the four states in the river basin.

Then he referred to a recent proposal as to whether or not the New England states should enter into another compact setting up a commission for the study of soil and water resources to make recommendations to the various state legislatures. "I have read the proposed compact and the proposed implementing federal legislation," Senator Aiken said, "and have noted several provisions which should be carefully scrutinized . . . I suggest that if any state compact which seeks to direct the use of our land and water resources is entered into, it be a state compact in fact,

with controls vested in the states."

The Agricultural Conservation Program was mentioned by the Senator as an important factor in all conservation work in the watershed. In the Connecticut River Watershed, there are some 3,500 farmers who participate in ACP programs to conserve and improve soil, water, and forest resources. "The federal government and the farmers join together in this work," he explains, "which is really of as much importance to the city person as it is to the individual farmer and to the agricultural economy of the nation."

The ACP program is based on the conservation needs of the various states, and the cost of the program is shared by the farmer and the federal government.

Senator Aiken then focused attention on the Small Watershed Act. He outlined the operation of the act, and the conditions which must be fulfilled to secure federal government help for a watershed project. However, he warned that, "Asking the federal government to do something which does not necessarily have great value for the region but only for the community may have the effect of jeopardizing a valuable asset for that community. We should bear in mind that when the federal government takes over a resource or a potential resource that the control and operation of such resource is taken out of local hands forever."

Exploring Alaska

(*From page* 13)

We ascended this stream to the head of navigable water in a shallow-draft gasoline boat furnished by the Engineering Commission. An 18-foot rowboat was carried along for the return trip. At Talkeetna we tied up the larger boat, according to prearrangement, and took the rowboat. As we returned down-stream we made from successive anchorages cross-valley foot trips from the banks of the river out to the foothills of the enclosing mountains on the eastern side of the valley.

These were time-consuming trips which had to be made between the swift glacier-fed streams rising in the mountainous areas. The streams could not be crossed with our equipment. We carried a minimum of food, a soil auger, a rifle and little else—not even a change of clothing.

From each of these cross-valley trips we returned to the starting point on the river. The explorations would have been much easier if it had not been for the numerous low areas abounding with beaver dams, which slowed our travel down to one mile per hour.

We cached our reserve of food at the starting point of each trip—until one disastrous occasion. This time, on returning, we discovered to our dismay that caching food reserves in the wilds of Alaska calls for no mistakes. Our error was leaving everything in a small tent carried along in the rowboat and set up for overnight stops. Some animal, probably a wild dog we had glimpsed in the locality, left nothing, not even the bone of a ham we had packed to celebrate the completion of the Susitna Valley job.

Fortunately we had a supply of fishhooks. I went fishing forthwith and had good luck, even though there was seldom time to look for fishing holes. Best luck was along the banks of the Susitna, where I caught some choice pink salmon. Actually, we got along very well with this straight diet of fish.

On returning to Susitna Station the party broke up. Rice and the two sourdoughs (those who had spent some 15 years in the territory) who had accompanied us up to the Susitna remained to explore the Yentna River country and portions of Kenai Peninsula.

I went by the winter trail (suitable for travel only when the ground is frozen) to Knik, with an Indian guide.

Half of the 30-mile trip from Susitna to Knik was through peat-bog. Alaskans call it muskeg. The trip took approximately two days. We walked of course. Common name in Alaskan language is mushing. It is an appropriate term for summer travel through muskeg country. Sloshing through would be more appropriate for the Susitna-Knik trail.

The peat had thawed out to depths of about five feet. Half of it was soupy, while the other part was sufficiently firm because of the shrubby, aquatic growth. This vegetation would support a man if he carefully selected a densely vegetated hummock to step on.

According to estimate, I mired knee-deep about every tenth step and waist-deep every thirtieth step. Getting back on your feet from these deeper penetrations involved a pro-

cess of wallowing out as best you could. In other words, muskeg in summertime is too soft for walking and too pasty for swimming. Anyway, I remember this as the most uncomfortable trip of my experience—ever worse than going through dense, thorny growth (chaparral) in southwest Texas while surveying in the early part of the century.

We crossed the Little Susitna River at the halfway point, on an improvised raft of logs, and spent the night in the empty winter roadhouse. It was a long, lonesome night; not a sound to disturb the peace except an occasional call of a loon—which I am convinced is the most ghostly of all animal calls when heard at TWO A.M.

Late in the afternoon of the second day we reached Knik, plastered with muck, sweaty, and dead tired. The dog population of the village, scenting our approach about a mile out, greeted us with a bedlam of barking. My whiskers were spiny and uncomfortable. I have never wanted another beard. Between my knees and shoe tops there was bare flesh, all covering having been picked off by devil club.

Shaved, bathed, and refreshed by sleep in the first bed in four weeks, I embarked on August 16 for Cordova, on Prince William Sound, en route to Fairbanks.

At Cordova I met Col. Wilds P. Richardson of the U. S. Army, builder of the Richardson Highway to Fairbanks. Here I made arrangements to go to Fairbanks by auto, an early model Ford, with the Colonel's party of army officers and Dr. Alfred Brooks of the U. S. Geological Survey.

Crossing the Chugach Range by the Copper River Railroad, we traveled by automobile from Chitina to Fairbanks. The Colonel's party traveled in a powerful truck.

It was an easy trip, in the relative sense. It was faster than going by foot and much easier, with comfortable roadhouses and good food along the way—which was 250 miles straight-a-way, and longer if you counted road difficulties. There were complications from the start. Unseasonable rains had washed out considerable strips of corduroy road, gouged out troublesome chuckholes in the roadway, and washed away one all-important ferryboat. Our light car was stuck in washed-out holes many times, but it had the advantage of being light and responsive to block-and-tackle assistance. I did the pulling while the driver did the driving and first-aid wiring of parts. This stop-and-go travel was slow, and sometimes highly confusing at night. Along one stretch we did not reach the roadhouse until midnight, as we had difficulty finding suitable trees or rocks in the dark to use for pulling-out operations.

It was mid-afternoon, about a day out of Fairbanks, when we came to the ferryboat landing on the Tanana River where the ferryboat had washed away. Our ingenious chauffeur was not disturbed. At a nearby Indian village he rented two stout rowboats, lashed them together with rope, and soon had a maneuverable ferryboat ready for the crossing. Boards lashed across the rowboats provided all that was needed for the car.

During the day we had relaid several flood-displaced stretches of corduroy and pulled the car out of a number of holes in the road. We were tired, hungry, and muddy. Just as we were about to leave, Colonel Richardson arrived with his party in the big truck. He called me aside to ask if we would be willing to stay over at the roadhouse across the river until he could telephone Fairbanks to send up a river boat to take his party in. He frankly explained that he didn't want to be

"outdone" reaching Fairbanks over the highway he himself had built. His frankness won us over; we probably needed a rest anyway. I can still sense the fragrant aroma of moose-mulligans in preparation at the roadhouses that pervaded the Tanana Valley as we made the crossing. It proved to be the best soup of my life, with the exception of the gumbo of Louisiana French families.

From Fairbanks we explored the surrounding country in considerable detail, particularly that part on the northerly side of the Tanana River. Much good land was found on the gentler southerly slopes. Our report has the following to say about the soils of the Fairbanks country:

"In the hills north of the Tanana bottoms is found the best soil seen in Alaska. This is a deep mellow silt loam (Fairbanks silt loam) having good drainage and moisture-holding capacity. It occurs on the lower slopes and is largely susceptible to easy cultivation. This type of soil is the same as that at the Fairbanks Experiment Station where such good results have been had with grains and potatoes. On southward-facing slopes it yields over 200 bushels of potatoes to the acre without fertilization. Early varieties of oats and barley mature in normal years. Wheat and rye also have matured at the Rampart and Fairbanks stations. Also varieties of grain give good yields of hay on this soil, even in years of early frost. Turnips, cabbage, beets, carrots, lettuce, celery and several other vegetables are grown with unusual success, both as regards quality and yield."

On one trip into the hill country north of Fairbanks, I was accompanied by Dr. Alfred Brooks, famed explorer with the Alaska branch of the U. S. Geological Survey—who had accompanied the group on the trip over the Richardson Highway. A question came up regarding the origin of the Fairbanks silt loam, which to my mind was the most productive soil we had encountered in Alaska. It had been described as lake-lain in origin. My idea was that it was wind-blown material—loess soil, that is blown off the sand flats of the Tanana during dry periods. The question called for an answer. Dr. Brooks agreed to act as judge after examination of my evidence.

Going straightaway from the banks of the Tanana, we made soil borings at regular intervals until rock fragments appeared at the surface. Up to this point we found brownish, silty material, without any admixture of partly decomposed rock fragments, in the upper soil horizon. This silty, rock-free material had been found along the entire distance. It was more than five feet in depth on slopes near the edge of the floodplain, but became shallower as distance from the river bottoms increased. No evidence of water stratification had been found in the silty layer, and no soil particles as large as coarse sand (1 to 0.5 millimeters in diameter) were found in the samples analyzed.

When we left the river flats, lively dust storms were carrying so much silt and fine sand in the direction we had taken that we could detect particles of grit in our mouths all the way to the point where residual rock particles appeared at the surface.

The aeolian point of view of the soil origin had carried the day.

Later, a trip with pack horse was made up the Nenana River Valley. Here considerable good soil was found, but a tip on the weather set us to backtracking with some haste. We had spread our tent on the ground and slept on top. Next morning, that part of my blanket near my mouth was embroidered with a bristly pattern of frozen breath. I asked my guide the meaning of this. His answer was, "It means cold weather began last night."

"And what are you supposed to do when that happens?" I asked.

"It means the time has come to start toward wherever you are planning to spend the winter."

"My plan is to leave Alaska by the Yukon River."

"In that case," said the guide, "let's finish these flapjacks and get going. Won't be long now until the weather takes over, unless you like

land travel, heavy clothes and dog-sledding."

That ended the discussion; we turned back toward navigable water with the disappearance of the last flapjack.

Returning to the mouth of the Nenana River, I went down the Tanana to Hot Springs by motor boat, and on to Fort Gibbon by trail. There, on the 16th of September, I boarded a Yukon River sternwheeler for the upstream trip to White Horse, took a short rail trip to the coast, and then a steamer to Seattle.

Stops were made at Rampart, Eagle, Dawson and other places along the river for firewood and freight. Thus I was able to keep an eye on the soil and agricultural conditions.

At a point about 100 miles downstream from Fort Yukon and 40 miles south of the Arctic Circle, the wooden axle of our stern-wheeler broke. Fortunately, we were able to replace the axle with a spruce log cut from a forest of white spruce near the banks of the river. This required a tree approximately 18 inches in diameter, and two long days of hard labor sizing and installing it. Then we went merrily along, past Fort Yukon, a few miles south of the Arctic Circle, amidst a midnight bedlam of howling huskies.

During the trip up the Yukon there were several slow-downs for forcing rapids by the windlass process.

On the way to White Horse I went ashore at a number of stops for soil samples and talks with farmers. During the trip we collected and mailed to the Washington laboratories 44 two-pound samples of soil. And this reminds me that the full details involved with such a trip, including preparation of the report, at times seemed all but endless!

Early Estimates of the Most Promising Agricultural Areas

The following estimates of the most promising agricultural areas are from the Alaska report on the 1914 survey (Field Operations, Bureau of Soils, 1914):

Cook Inlet-Susitna Region—The area found suitable for farming in this region without costly drainage amounted to 1,296,000 acres. This was enough good land for 8,000 farms of 160 acres each.

Fairbanks Region—The reconnaissance report has this to say of the Fairbanks area:

"The lowest estimated area of

farming land in this region is 4,500,000 acres. In this estimate only 50 per cent of the 7,000 square miles of the lower Tanana bottoms is included and less than 25 per cent of the Uplands lying to the north of the Tanana River.

"In the sections seen the proportion of farming land was larger than this and it is probable the figures given fall short of the actual area of arable land. In this estimate the large area in the Yukon bottoms was not taken into account because of the northerly latitude, yet it is recognized that farming is possible in these Yukon flats."

A Word of Warning

Forty-five years ago there was a note of warning to prospective settlers in our report on the agricultural possibilities of parts of Alaska. This was as follows:

"Those who are thinking of going to Alaska for the purpose of engaging in agriculture pursuits should give careful consideration to the conditions—the topography, climate, population, soil, crops, means of travel and transportation, markets . . . it must be remembered that as yet strictly pioneer conditions obtain . . . much of the country is inaccessible owing to the absence of roads and railroads, and that home markets are restricted . . ."

Some of the pioneer conditions still exist, but time has changed the situation markedly. Airplane travel, for example, has obliterated much of the problem of inaccessibility, and conditions have changed materially in a number of other ways—including statehood for the territory. It seems likely that from now on development will occur rapidly in many areas of this state at the northwestern corner of the continent. But the physical geography of vast areas will remain as it was in 1914 when Tom Rice and I went ashore at the spot where Anchorage was to be built.

Reading About Resources

(*From page* 7)

pages, an exposition as clear as a mountain spring.

No tabloid crime story was ever breezier or better paced, and none was ever so important as this little book. In his tight, newspaper-pure sentences Lynch reports on the conditions that exist in water usage today: the confusions, the ignorance, the irresponsible special-interest laws. He analyzes the available supply of water and examines the remedies for its proper utilization. All this he does by means of a torrent of facts.

The second half of this report is a region-by-region run-down on the status of water usage, of laws, of need, etc. The closer these things come to home, the better we laymen understand the experts. And many a layman, reading of his own region, will feel that Lynch's sentences run to generalizations, and that his facts, while true enough, are not the whole truth.

This is inevitable whenever so much data is compressed into so few pages. Lynch should not be blamed. The man deserves marks for having given us a comprehensive, *readable* report on water in the U.S.A.

And speaking of the U.S.A., I have just read an old book (1957) by Donald Culross Peattie of *Reader's Digest* fame: **Parade with Banners** (World Publishing Co., N. Y. $3.50). It is a compilation of pieces, written largely for the *Digest*, on patriotic themes in the development of our country—and mention of it in a resources column is justified only because of one chapter, "Old Glory Takes to Sea."

Here is a romantic account of the virgin white pine in the growth of American commerce, and particularly of three majestic trees, more than four feet in diameter at breast height —ready for shipment to the slave coast of Africa in exchange for slaves for the West Indies—when they were appropriated by John Paul Jones.

This greatest of our nation's warring sailors masted his famous "Ranger" with these timbers at a time when already the demand was outstripping the supply. It is a slight tale, though Peattie's embellishments exceed what I have suggested. Yet this sort of pleasant, homely romance is not without virtue, and the romance of the white pine in American life bears repeating.

The book is neither important nor enduring, but it was good to be reminded again of the forests that underwrote the strength of New England, and hence of this young nation.

What Is Multiple Use?

(*From page* 30)

maximum production of wood might be adjusted downward to benefit wildlife, water yield, or recreation if the defined objectives so dictate.

It is significant that the demands of an expanding population, with corresponding pressures on all land uses, make it more important to secure multiple use. When uses are competitive, as is to be expected under pressure, they just don't fit together easily. Certainly, under intensive management, the land administrator must be infinitely more skillful in combining uses and at the same time minimizing conflicts.

One feature of land management needing emphasis in terms of multiple use is the fact that full utilization of resources isn't always the best management for a given tract of land. A situation frequently prevails where one or two uses predominate to the extent that all other uses must be subordinated or eliminated. As an example, watershed values of certain southern California mountains require that during high-hazard fire weather all human use be eliminated. In the established and designated wilderness areas in national forests and parks, some uses are completly eliminated in deference to the dominant wilderness values and use.

In closing this brief description, a few instances illustrating the complexities of multiple use will serve to point out the realities in its application. One of the most complex aspects of multiple use application involves conflicts within uses rather than between uses. For example, mass recreation requires roads and improved travel facilities, whereas wilderness use is conceived and carried out without these facilities. The two are not harmonious, yet

both are essential and highly desired. In timber production, the harvesting rotations necessary for pulpwood or other small products are distinctly different from those required for producing sawlogs, yet both are desirable in their own particular circumstances.

Conflicts between uses may arise, such as between grazing of domestic livestock and big game production, between management of the forest for recreation and for timber production, and between watershed management and timber production. These are only examples, and can be multiplied many times, with each combination presenting its own particular problems and solutions.

In applying multiple use, the land manager is faced with reconciling conflicts in such a way that over-all objectives are attained. The manner in which objectives are reached is a measure of the manager's skill and success. Objectives are best fulfilled by securing the highest level of multiple use that the characteristics of the land will permit. There should be full recognition, however, that frequent exceptions to the general rule exist. Where these exceptions occur, management systems must be designed and carried out with infinite skill to achieve most effectively the objectives of the particular ownership involved, regardless of the level or degree of multiple use secured.

Forest Congressman

(*From page* 35)

develop the recreational opportunities offered by our national forests. The Forest Service has the legal authority to do this now, but H.R. 7200 would give it a specific tool with which to do the job."

How does this proposal fit into the work of the Outdoor Recreation Resources Review Commission?

"I am certain in my own mind that if we are successful in maintaining a growing economy, free of war, and I pray we will be, we are going to need increased recreation resources. This commission can help shape constructive guidelines."

Mr. McIntire, may we return to the Allagash question? Are you reflecting Maine views on this subject?

"Yes; at least views of those people who are making a careful study of the situation."

Can development of this area be done by private enterprise?

"I think a substantial portion can be done within the framework of private development. Most of the roads in that district have been built by private landowners. Most of the lands are open to hunting. A paper company recently donated land along a lake to the state and our biggest park, the 200,000-acre Baxter State Park, was donated. Of course we must do more than depend upon gifts. But the entire subject should be explored rather fully to see what can be done under private enterprise before we look to public funds."

Giving Forestry A Place In the Sun

(*From page* 16)

observing specific conditions and practices on the ground, is where the explanations, the technical discussions, and the debates on forestry and utilization practices and other technical questions took place. The excursions, too, afford the best opportunities for renewing old, and making new, acquaintances—an important matter in the Scandinavian scheme of things.

There were 21 excursions for men and 7 for women—all planned and carried out with careful attention to detail and efficient use of time, under the general direction of the Organizing Committee with the assistance of individual excursion organizers and their committees or staffs. A program brochure with simple and attractive format in green and white gave for each excursion the follow-

ing information: the general theme, the chairman, and the place of assembly. For each day it gave the excursion leader, a brief description of the route and the main features to be visited, the distance to be traveled by bus (and by boat in several cases where there was boat travel), the distance of walking, and the overnight stopping place. At the end of the excursion the time of departure, means of transportation, and time of arrival in Stockholm were shown. Also given was the excursion fee or charge.

The aim was to limit each excursion to 40 persons—approximately one bus load—although there were a few more in some cases. Private cars were not allowed. For some excursions there were so many applicants that some had to be assigned to other excursions. The Organizing Committee had requested applicants to indicate second and third choices, foreseeing such contingencies. Each prospective participant in the Congress was directed to fill in and submit to his country's secretariat a form showing his choice of excursions, detailed information about himself, and the accommodations desired outside of the excursion itself. This form, accompanied by an advance deposit, had to be submitted to the country secretariat by a fixed date.

Including the 230 women on the 7 excursions for women, about 1100 persons participated in the 28 excursions—an average of about 40. Attendance by countries was: Sweden 544, Norway 324, Finland, 146, and Denmark 93.

The excursion fees covered only the cost between the times of arrival at, and departure from, the places of assembly. They included service charges (tips) and some of the beverages. The participants were to get to the places of assembly, and from there to Stockholm, at their own expense. The excursion fees varied from $26 to $40 — amounts which seem low to American eyes. This is due in part, at least, to the fact that in general costs are much lower in Sweden than in America, and to the fact that the distances traveled were less than would normally be the case in America. In some instances the overnight stops were at a forestry school or the forest demonstration farm headquarters of a country forestry board where the charges were undoubtedly less than commercial hotel rates. Perhaps the fact that the excursionists were guests of various organizations, forest industries, and estate owners on a number of occasions was a factor. On only seven of the excursions was the distance traveled 300 miles or more. These rather short distances had the advantage of allowing a maximum of time for actual observation and discussion on the ground.

Men were selected as excursion chairmen who are concerned with forestry matters in some important way and, in some cases, are foresters, and who are familiar with their respective regions. They were men who also enjoy a high measure of prominence and prestige. For example, 5 of the 21 chairmen of the excursions for men were provincial governors. They probably enjoy more political prestige than any other public official except the King, Prime Minister, and members of the cabinet. Others included the present Chief and a former Chief of the Swedish Forest Service, the Dean of the Royal School of Forestry, a member of the Parliament, and prominent estate owners and forest industry officials. Customarily these chairmen gave a cordial welcome to the excursion participants at the places of assembly, and presided at appropriate occasions during the excursions.

The excursion leaders were well-known experts such as county forest

officers and regional foresters, the Executive Director of the Swedish Forestry Society, and other prominent foresters. They were, of course, thoroughly familiar with the particular topics of the excursions. There might be one or more leaders on an excursion. Usually they gave orientation talks at the beginning of each day's travel—sometimes at individual stopping points. These talks in some cases were supplemented or expanded by descriptions in the individual excursion brochures (to be described later).

Central themes of some of the excursions, selected at random, were: forestry in northern Sweden; stand establishment and early care; large company planning, organization, and operation; co-operative systems in forestry; estate forestry; forestry in Middle Sweden; research and forestry; company and farm forests and industries. Perhaps it would be more enlightening to say that every phase of silviculture—from stand establishment to harvesting, the various methods of logging and land and water transportation, the particular variations in practice and the problems on company and farm forests, mechanization and other efficiency measures, the problems of forest labor, and many forest industry plants — was intensively observed. Naturally, in a country not much larger than the state of California, many topics cut across more than one, and sometimes several, excursions. Among the subjects that received repeated attention were: seed orchards, in which Sweden has pioneered; forest tree breeding; forest nurseries and plantations; the problems of forest labor, and improvements in living conditions and community services for labor; various categories of forest industry, etc. Days were very fully scheduled, particularly on the men's excursions. The evenings, in varying degree, were devoted to sociability—sometimes to informal illustrated talks on appropriate subjects. On an excursion in the Bergslagen (the famous Middle Sweden iron region) the history of the iron economy—which was closely related to the use of forests—was described. The restorations and other measures at Kratte Masugn to preserve the memory of this historic culture were displayed.

For each excursion there was a separate published program brochure that followed the same format as the general program brochure. This included all of the same information, but also included for each day a

detailed time schedule, a more complete description of the places and subjects to be observed, and the institutions which were to act as hosts on certain occasions. Customarily there was also a rather detailed history and a technical description of the conditions, problems, and practices to be observed—in some instances with photographs and diagrams.

To describe one excursion in some detail might prove of interest. Excursion Number One, Norrbotten, is selected because of its unique setting. Alvsby, the place of assembly, is some 50 or 60 miles south of the Arctic Circle. The entire excursion was in the general vicinity of the Circle. All of Norrbotten, the northernmost and largest Swedish province, is farther north than Fairbanks, Alaska. This region is characterized by large (for Sweden) national and company forests, interspersed with some farm and communal forests. The transition from virgin forest land to well-managed, producing forests is well advanced.

The chairman of this excursion was Governor Näslund of Norrbotten, and the excursion leader was Regional Forester (the nearest American equivalent to Sweden's "överjägmästare") Frederik Ebeling. The excursion covered 334 miles by bus, and 3.6 miles on foot. The fee was approximately $27.

The nearly 50 participants had assembled in Alvsby on August 25, the day before the excursion was to start, and were given maps and printed material, and dined together at the Alvsby Forest School to which they would return each night.

Governor Näslund welcomed the company to the Alvsby Forest School on the morning of August 26, the first excursion day. At 8:00 coffee was served; at 8:30 excursion leader Ebeling gave an orientation talk in the school's lecture room; at 9:00 breakfast was served; at 10:00 the trip began. The company visited national forests, where they considered forest regeneration practices; vegetative competition for soil food, reduced by killing some vegetation but enhanced by fertilizing; killing and preventing hardwood vegetation by the use of hormone derivatives; and principles for the management of cutover areas. They returned to the Forest School for dinner at 6:00 with the Forest Service as host.

On the second day breakfast was served at 7:00 and the field trip began at 8:00. This also was largely a national forest day. The problems of forest labor were taken up, and the old sparsely-settled forest worker communities were contrasted with the present-day concentrated villages and modern family houses. Also, cantonments for forest workers were observed. The relatively inaccessible locations, the more severe climate, and the poorer soils that characterize the national forests—mostly located at high elevations near the coast and in Lapland—were brought out. In some localities the conditions do not permit the practice of good forestry. Dinner was at 7:00 at the Forest School.

The third day began with breakfast at 8:00. At 9:00 the party left for an important national forest nursery where all phases of nursery work were demonstrated. After having lunch there, the party returned to Alvsby, where they visited a machine depot. The use, care, etc. of the various types of machines was explained. Then the excursionists changed clothes, got their baggage, and departed for the airfield, from which they took off at 7:00. Dinner was served on the plane.

The seven excursions for women were co-ordinated with an equal number for men, in that five of the former had assembly places in common with the latter, and in many or most cases the overnight stops were in the same towns. On these excursions the men and women dined together on one or more occasions. These dinners were usually followed by dancing—a favorite feature of social occasions in Scandinavia.

The women's excursions did not adhere to such arduous time schedules. The chairmen were wives of men prominent in the forestry world, or well-known in their own right. The central themes and special features, as might be expected, ran more to objects and institutions of historic and cultural interest, of which there are many in Sweden—famous castles, churches, museums, estates, etc. Much attention was given to handicrafts and works of art. Some time was allowed for shopping when in large cities. But some time was also allowed for observations in the forest, the demonstration forest farms and training centers of the county forestry boards, and in forest industry plants.

Stockholm and vicinity, with its wealth of historic features as well as fine stores, was a Mecca for the ladies. An attraction for both men and women on one pair of excursions was the museum of the Great Copper Mountain Company in the city of Falun, in the storied region of Dalarna, whose citizens have as strong a local pride as do our citizens of Texas. Ingeniously exhibited in this museum, among other things, is the whole transition from the early, very primitive to the present very modern processes of mining, logging, and manufacturing over the 600-year span of this extraordinary company, said to be the oldest industry in the world in continuous operation. Starting in the 1200's, it reached its zenith in copper in the 17th century. Even then it was branching into iron mining and manufacturing—it still has the largest iron works in Sweden—and later went into sawmilling, pulp and paper manufacture, chemicals, and hydroelectric development. Today it has some forty or more plants. It owns, and practices good forestry on, 750,000 acres of land under intensive forestry administration. It has given much attention to improving the living conditions of its workers. I can testify from personal observation to the great interest that this company holds for a visiting forester.

The historic chalk-limestone island of Gotland, which constitutes a separate county, or province, of Sweden, with its ancient walled city of Visby, was so great an attraction that the Swedes courteously allowed their Danish, Norwegian, and Finnish guests almost to fill the excursion. This was the first time a major forest excursion had reached Gotland. There is so much interest on the part of Swedish foresters in Gotland that the Swedish Forestry Society has planned that its annual excursion this year be on that island. This is to be a three-day excursion, limited to 100—still enough for quite a party.

Gotland combines a wealth of historical, cultural, and forestry interest. The old city of Visby has a picturesque city wall, narrow streets, steep-pitched roofs, and the ruins of more than a dozen great stone churches from the Twelfth Century. It was an important trading point of the Swedish Vikings who, during the period 800 to 1050, opened an important trade with the Black Sea cities by way of the Gulf of Finland, and the Dvina and Dnieper Rivers. In the process, they established the first organized government in Russia—a dynasty that lasted five centuries. No doubt the Swedish blood had become pretty thin by the end of that period. Nearly every year fresh hoards of Byzantine coins buried there by the Vikings are dug up on Gotland. Later Visby became one of the principal centers of the Hanseatic League.

For centuries the limestone formations of Gotland have been of commercial importance, and today one can contrast the primitive "burning ovens of Slite" with the modern plant of the Skåne Cement Com-

pany. One sees also well-preserved examples of the picturesque windmills once used to grind grain.

Although the soil is poor, good forestry is practiced and has become economically important. The Skåne Cement Company itself is applying good forestry to its some 15,000 acres of forest land. The county forestry board has developed a demonstration forest farm and training center that compares with those on the mainland. I heard more about the forest pest of wild rabbits on Gotland than anywhere else in Sweden. Here is located one of the prosperous small sawmills, lumber preservation plants, and lumber, pole, and tie yards of a forest owner co-operative association. These associations play a very important role in Sweden's farm forestry.

By the morning of August 29, all excursionists had congregated in Stockholm for the general session of the Congress in Stockholm's great Concert Hall. Some 1300 persons, including many ladies, had already assembled and listened to Hugo Alfvén's Festival Overture when, at precisely 10:30, Gen.-Dir. Höjer of the Swedish Forest Service and President of the Northern Forest Union escorted His Majesty the King, high patron of the Congress, into the great hall, where he took his place with the Minister of Agriculture at the front of the assemblage. Gen.-Dir. Höjer then ascended the podium, which was banked with beautiful fall flowers and the flags of the northern countries, and made the address of welcome.

Dr. Höjer set forth some of the main features of the Nordic foresty situation, including the present unsatisfactory international market conditions for forest products which had led to low prices and curtailment of the forest industry output in Scandinavia. He viewed the long-range trend, however, with confident optimism.

He said that Nordic forestry rests on three pillars: *forestry education, efficient administration and silvicultural treatment,* and *a friendly economic and social climate.* He coupled forest education with research as a *sine qua non* reaching into all phases of establishing, managing, and utilizing forests. He emphasized the importance in administration of reducing or limiting operating costs all along the line through greater mechanization and efficiency, but accompanying it by improved standards of living for office workers and forest labor. In the

matter of friendly climate, it may come as a surprise to those who think of Scandinavia as approaching the millenium in this respect that he found something to be desired, particularly in the northern parts of the countries and, in effect, challenged the public to adopt a more sympathetic attitude. He said the great dependence of Sweden, Finland, and Norway upon a forest economy made this both logical and essential.

Danish music from Carl Nielson's Alladin followed Dr. Höjer's address. Then came three short addresses by prominent foresters of Finland, Norway, and Denmark. Next was an epilogue in which the part of the forest fairy Gerda was played by a Swedish movie actress. The meeting closed with music from a march by the great Finnish composer, Sibelius, played by a thirty-piece ensemble from Stockholm's Philharmonic Orchestra.

Afterward, His Majesty the King, in a special private audience, decorated the late N. B. Ulrich, then Chief of the Danish Forest Service, N. N. Ihlen, Executive Director of the Norwegian Forestry Society, and Jarl Lindfors, Chief of the Forestry Department of the Central Association of Finnish Woodworking Industries, with the highly-esteemed Royal Order of Vasa.

The Congress banquet was held that evening in the great, imposing Blue Hall of the Stockholm City Hall. A brilliant affair in a splendid setting, the banquet was served with all the nicety and color so characteristic in Scandinavia. Good fellowship reigned supreme. Gen.-Dir. Höjer, the main speaker, made an inspiring address appropriate to the occasion, in which he extended a cordial welcome to all the guests, and in conclusion presented the special congress axe to the honor guest, Minister of Agriculture Gösta Netzén. He invited the Minister to participate in the joint forestry work of the northern countries. Later during the banquet Dr. Höjer, as the retiring president of the Northern Forest Union, turned over the silver insignia of the office to Gen.-Dir. Langsaeter of Norway, whom the delegations of the four countries had unanimously chosen president for the four-year period 1959-62.

Tributes and appreciation were expressed by Minister Netzén, who said he was happy to be among forestry people, and by the Chiefs, Ulrich, Osara, and Langsaeter of the Danish, Finnish, and Norwegian Forest Services, respectively. Mrs. Mairi Karvonen of Finland spoke for the ladies.

A special feature of the occasion was an address directed especially to the ladies by the popular Axel Schard, delivered in blank verse, which was received with prolonged applause. It was full of humor, as befitted the occasion. After dealing with some of the famous women of history commencing with Eve, and getting in his usual humorous poke at the Danish language, which he professes not to understand, he ended with a warm tribute and toast to the women of Scandinavia. Schard, retired some two years ago from the county forestry board organization of Sweden, is a forester with a fine sense of humor and a gift for language. Once a bucking horse rider with a wild west rodeo show in the United States, he is widely known in Europe as a naturalist, hunter, linguist, and raconteur.

After the banquet came dancing until the small hours. During the two intermissions the Academy Chorus performed, to the great appreciation of the listeners. Next morning, nothwithstanding these late and vigorous hours, the Congress guests were up in full force to attend the formal opening of St. Eric's Fair by the Minister of Agriculture, and to examine the extensive forestry exhibits of the Scandinavian and many other countries. A division of the fair—partly inside and partly in the open air—was devoted to forestry and related machines and equipment. The entire pavilion used by West Germany was given over to forestry. The U. S. Forest Service supplied some thirty enlarged photographs depicting various aspects of silviculture in America. These were later donated to the forest institute Silvanum in Gävle—an important forestry and forest industry center. Foresters displayed great interest in the latest developments in tractors, trucks, other logging equipment, motor saws, etc. This, the final day of the Congress week, was appropriately concluded with an informal dinner and social evening in the Technical Institute.

As tangible reminders of the Congress a light axe, beautifully ornamented with the official insignia of the Congress, was given to each participant in an excursion. These axes, very useful for light work, were supplied through the generosity of the leading axe manufacturer of Scandinavia. Also, every participant has been given a two-volume publication which summarizes the programs of all the excursions and gives

a detailed report of what transpired on each, so that each person can profit from all of the excursions. These gifts were much appreciated.

Thus, with many felicitations and expressions of good will, the Ninth Northern Forest Congress passed into history with the conviction on the part of all the participants that it had well served its objective of further facilitating the progress of forestry in the northern countries and of strengthening the bonds of mutual interest and friendship on the forestry front.

Eyes will now be turned forward to the next Northern Forest Congress, which will be held in Norway in 1962 under the leadership of the new Executive Committee of the Union and its president, Gen.-Dir. Alf Langsaeter, of the Norwegian Forest Service.

What are some of the impressions gained from the Northern Forest Congress that may be worth keeping in mind in planning other international forest congresses? At the risk of some repetition the following items are mentioned, not with any idea that they are original or would not be considered as a matter of course in planning the next world forestry congress, or any other international one. Reiteration, however, may lend desirable emphasis.

This Congress, as compared with a world forestry congress for instance, was on a small scale, and enjoyed certain advantages that could hardly be equalled elsewhere. It involved countries of very homogeneous natural, economic, and political characteristics, and similar social concepts. In numbers of participants, however, it probably compares with most others. Certainly 1100 persons on the excursions connotes a big operation. In any event, one general impression is that this Congress was planned and carried out with remarkable skill and careful attention to details that in the aggregate meant much to over-all smoothness and effectiveness.

Great emphasis was placed on the excursions, and perhaps it can be said that their success largely determined the success of the Congress as a whole. They took place before the general session, and so supplied a background of field observations and personal acquaintance—in other words, a common approach—that undoubtedly facilitated the general meeting. I believe this arrangement helped to sustain interest throughout the Congress.

All of the excursions were of the same duration. They began and ended at the same time, so the whole Congress dovetailed nicely. In a large country with a great variety of conditions, like the United States —especially if a set of excursions were to reach every important condition, as they did in the case of Sweden—the duration of the excursions probably would have to vary. Even so, it would be possible, although perhaps more difficult, to adjust the beginning dates to the opening date of the general meeting and to the travel time from the terminal points to the general meeting place, so that the excursions could precede the general meeting.

The conduct of the excursions was simplified and facilitated by limiting each to one bus load, by barring the use of private cars, by setting the excursion fees to cover all necessary expenses during the period between the arrival at, and departure from, the assembly places, and leaving other expenses to the individual. Detailed time schedules and descriptions of the conditions and places to be visited were published well in advance in a separate program brochure for each excursion. A comprehensive brochure combined, with shorter descriptions, all of the excursions and a map showing the assembly places.

The prestige of the Congress, and indirectly that of forestry in general, was enhanced by the active participation of men in high places, commencing with the King and the Minister of Agriculture, and including the Chief of the Swedish Forest Service and other officials of corresponding rank. Notable, too, was the prominence of the chairmen of the excursions and the excursion leaders. A distinctive insignia for the Congress appeared on all brochures and in other appropriate places. Tangible mementos of the event were given the participants. The Congress was made the occasion for the award by the King of the high honor of the Royal Order of Vasa to three distinguished Scandinavian foresters.

Ladies were an important part of the Congress. There were seven excursions specifically for them. And of course they were an essential feature of the social events.

Ample provision was made for the social, good-fellowship side of the Congress through the medium of banquets, dinners, dances, and other forms of entertainment. This pertained to the excursions as well as the general meeting in Stockholm. On many pre-arranged occasions, public agencies, forest industry com-

panies, and even individuals acted as hosts to excursions.

The great advantage enjoyed by the Northern Forest Congress of having no important language barrier will surely have occurred to the reader. The Swedish, Norwegian, and Danish languages are so closely related that a citizen of one country can understand the other languages even though he may not be able to speak them. Moreover, Finland is a two-language country (Finnish and Swedish) and the Finns attending this Congress would be able to understand the others. This emphasizes the importance of providing expert interpreters for any congress where several languages are spoken. It may be relatively easy in general meetings where simultaneous interpretation is practicable, but it is equally important and far more difficult on excursions. Here are needed individual interpreters who know several languages.

This Congress exemplified the Scandinavian practice of associating various forestry events. For example, the timing of the Congress in relation to St. Eric's Fair, and the annual meetings of certain forestry-related organizations. A more striking illustration of this practice, however, is Forest Week in Sweden, a well-established institution which deserves separate treatment.

The world becomes more complex and, figuratively speaking, smaller, at an accelerated pace. International relations will continue to become closer and meetings more important, on the forestry as well as other fronts. A country can learn and profit by experience—its own and that of other countries. It is hoped that this description of the Northern Forest Congress will contribute to that end, and will also have some interest on its own account.

Earl W. Loveridge—An Appreciation

(*From page* 6)

schedules. Loveridge was repeatedly recognized by leaders in administrative management, and especially in the field of public administration, as an outstanding authority.

In reviewing Loveridge's history, one is constantly reminded that he was a man of action from the beginning of his career. As a young forest supervisor of the Carson National Forest in New Mexico, he was handed a report by a range survey crew which showed that the sheep ranges were seriously overstocked. Earl went into action and reduced the permitted number of sheep on the forest from 160,000 to 80,000. On one division the number was cut from 21,000 to 1,500, without any appeal by the permittees to higher authority. Present-day administrators, confronted with similar problems and encountering bitter opposition, can recognize the immensity of such an achievement.

Like all men of action possessed of challenging temperaments, Earl naturally ruffled many a feather. One of his early-day forest supervisors said to him, "You are the most provocative person I ever met." But Loveridge seldom ruffled a feather that did not need to be ruffled. He always had a constructive purpose in doing so. Complacency was intolerable to him because it negated progress. But in demanding progress, Earl never would have it at the price of riding a man down.

Earl came up the ladder the good way. He got grass-roots experience as a lowly field assistant, as an assistant forest ranger, then with a ranger district of his own. From there he went through the echelons of forest supervisor, district forest inspector, and finally as an assistant chief of the Forest Service. After retirement he went as an expert advisor in forestry to Colombia, Yugoslavia and Venezuela—truly a rich experience.

Loveridge didn't have to wait for posterity to acclaim his achievements. Repeatedly he was hailed by men and organizations outside the Forest Service for his pioneer work in administrative management. What he did here and in promoting the fire control policy will perpetuate his name as long as there is a Forest Service. He may well have been the only man in the Department of Agriculture to receive both the Superior Service Award (1948) and the Distinguished Service Award (1951).

Earl always regarded himself as a public servant. As such, his service was truly noteworthy. The monuments he left behind are enduring.

Forest Forum

(*From page* 3)

relate to whether or not the motion could appropriately be acted upon, but rather should NRC, in approving co-operation with a western hemispheric conference, stipulate that such not be scheduled in 1960.

J. W. Penfold
Secretary
Natural Resources
Council of America

Sequoia and Sequoya

EDITOR:

We appreciate the reference to California redwood in your May issue, and the article about the Indian chief Sequoya.

We hope you won't mind if we comment that the reference to the *Sequoia gigantea* as the California redwood is not exactly in keeping with the custom of the industry in referring only to the *Sequoia sempervirens* as the California redwood.

From time to time there seems to be a little confusion between the two species. The *Sequoia gigantea* is found only in the Sierra Pine Region of California and is not used commercially; whereas the *Sequoia sempervirens* is found along the northern coast of California and is the species used in the trade.

The coast redwood, *Sequoia sempervirens*, is generally acknowledged to be the tallest, but not the oldest, of our native trees. It is exceeded in age by the *Sequoia gigantea* and also the bristlecone pine (*Pinus aristata*).

Fred Landenberger
California Redwood Association
576 Sacramento Street
San Francisco 11, California

EDITOR:

I have just finished reading Mr. Ogilvie's article about Sequoyah in the May issue of AMERICAN FORESTS.

To me it is unfortunate that more complete information was not given. I believe you will find the preferred spelling of his name is as given above. Also, the birthplace was Ft. Loudon, not Ft. London. . .

Sequoyah's last home, in Oklahoma, is preserved as a memorial.

Donald E. Stauffer
Oklahoma Planning and
Resources Board
Division of Forestry
Oklahoma City, Okla.

(According to *Webster's International Dictionary*, unabridged edition, the name of the inventor of the Cherokee syllabary is spelled SEQUOYA.—ED.)

He Loved Trees

(*From page* 8)

willing to make a sacrifice to secure it."

Van Name never sought personal recognition for his part in successful preservation campaigns, and he rarely got it. This fact was well expressed by Irving Brant, with whom he worked closely on the Emergency Conservation Committee of New York. In a letter to the *New York Times* shortly after Van Name's death, Brant said of him, "When great and lifelong service to the public is combined with self-effacement, it is possible for a man to depart from this earth so quietly that hardly anybody knows what he has done for those who remain behind."

Interestingly, in his professional career Van Name had little to do with the trees and forests that he loved so well. For the greater part of his adult life he was an invertebrate zoologist on the staff of the American Museum of Natural History in New York, where he specialized in marine research. On expeditions along the coast of California, the west coast of Central America, in the Philippines and other islands of the Pacific, he made outstanding collections of small sea animals. His studies of these organisms resulted in valuable new knowledge of the waters and sea currents which support them.

Born in New Haven, Connecticut, Van Name was graduated from Yale, where he received his doctorate in zoology in 1898. After a brief period of teaching at his alma mater, he was for six years an editor for zoology and general biology with Webster's International Dictionaries. From 1910 to 1916, he was employed at the New York State Museum in Albany, and in 1917 joined the staff of the American Museum of Natural History as an assistant in the Department of Invertebrate Zoology. When he retired from active service in 1942, he was an Associate Curator of Lower Invertebrates, and from that time until his death he held the title of Associate Curator Emeritus in the museum's Department of Fishes and Aquatic Biology.

Although officially retired, he remained at the museum through the war years, devoting his energies to the defense, not only of forests, but of many forms of threatened wildlife. A newspaper or magazine article advocating the use of steel traps never failed to evoke from him an angry letter of protest. He attacked numerous programs involving insecticides and predator poisons for their indiscriminate effects on entire ecological communities. He deplored the bounties paid on eagles in Alaska, holding that they threatened with extinction the bald eagle, our national emblem. He pleaded for the establishment of a sanctuary for the Alaska brown bear.

As late as 1954, he was still maintaining his vigilance over the national parks, bitterly inveighing against a proposal to do some lumbering in Olympic National Park. Later that year he suffered a hip fracture from which he never fully recovered.

In the conservation movement as a whole, Van Name was considered something of a maverick, but his dedicated concern for the nation's forests earned him the deep respect of conservationists everywhere. Horace Albright, former director of the National Park Service, spoke for many others when he said of Van Name, "I never knew a man who loved trees as much as he did."

Feature Photo of the Month

Photos used on this page will be of unusual rather than esthetic qualities and subject matter will be restricted to scenes, events, objects or persons related to the use, enjoyment or unique aspects of our renewable natural resources. For each picture selected, AMERICAN FORESTS *will pay $10*

Photograph submitted by Barney Sellers, Memphis, Tennessee

Memphis city officials have credited The American Forestry Association with saving the city's venerable swamp red oak, a Big Tree Champion, from the bulldozer. City street builders had decided that the street must be widened, and the tree was doomed. The neighborhood protested the tree's removal, and the Commercial Appeal printed a poem about the tree. American Forests reprinted the poem along with a photograph of the huge oak. Under the deluge of requests to save the oak, the street builders finally capitulated and built the street around the tree. The Big Tree Champion was saved.

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South of North Bend, Oregon, the Menasha Wooden Ware Corp. initiated a reforestation program on 1,000 acres of logged over land. The area was hilly and heavy with dead logs, stumps, brush and small alder. For clearing sections like this, the company used a Cat D6 Tractor with No. 6S Bulldozer and a winch pulling a disc harrow. The disced strips, 7 feet wide and 10 feet apart, were laid out on contour. Production: 1.2 acres an hour at the cost of only $8.53 an acre. Said Ralph W. Horn, Land and Timber Manager: "For size, power, cost and maneuverability, the D6 is tailored for this job."

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